

POPULATION GROWTH IN STANDARD METROPOLITAN AREAS 1900-1950

**With an Explanatory Analysis
of Urbanized Areas**

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FOREWORD

This monograph is the first report in a series of studies being made on the subject of patterns of metropolitan growth. Research in this field was begun in 1948 at the Scripps Foundation for Research in Population Problems at Miami University, Oxford, Ohio, as a part of a larger program of research in population distribution. This research was particularly needed as a result of the major changes made in 1950 by the Bureau of the Census, United States Department of Commerce, in its treatment of area data in the fields of economic and social statistics. These changes made data from all earlier censuses relating to metropolitan areas and to urban population uncomparable with those for 1950 and later years. There was a genuine need, therefore, for a means through which the major users of such data could make the transition to the new series with a minimum of confusion.

Consequently, in 1950 the Housing and Home Finance Agency granted the Foundation a 4-year contract for further research in this field. This has made it possible to intensify and expand the work on metropolitan growth patterns. The Housing and Home Finance Agency shares its financial sponsorship with the Rockefeller Foundation which granted the original funds under which the project for research in population distribution was begun.

The present monograph, which is the first of a series of seven, reestablishes the continuity lost by the shift in 1950 from metropolitan districts to standard metropolitan areas. Working from the 168 standard metropolitan areas for 1950, the author has reconstructed comparable data by decades from 1900.

Monographs which follow will deal with aspects of metropolitan growth which have been the subject of widespread discussion and concern. Among the topics covered will be trends in the distribution and redistribution of retail trade, manufacturing, service establishments, and wholesale trade within metropolitan areas, and changes in the composition of the population of central cities and the various parts of metropolitan areas. In the field of housing and urban planning particularly, the relative rates of growth of the central city and the urban fringes have an important bearing upon the character and location of future housing developments and their related community facilities. It is believed that the analysis of a half-century of metropolitan growth set forth in these volumes will provide useful guideposts to business as well as to public officials concerned with housing policy. The Scripps Foundation will publish these monographs in its series, *Scripps Foundation Studies in Population Distribution*.

The research project was sponsored by HHFA's Division of Housing Research. It was administered by the Division's Housing Economics Branch headed by E. Everett Ashley 3d. Edmond H. Hoben, urban studies specialist with that Branch, was the staff technician directly supervising the work on behalf of the Government.



Director of Housing Research.

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SUMMARY

The metropolitan district, used since 1910 to present population statistics for large cities and their suburbs, is being replaced in the 1950 census by standard metropolitan areas.¹ Whereas the metropolitan district was composed of one or more central cities and the contiguous suburban townships; the S. M. A. consists of central cities, the entire county containing these cities, and any other counties having metropolitan characteristics which are integrated with the central city.² This change has been made to achieve greater comparability among several bodies of Government statistics and to adjust census concepts to changing patterns of distribution of population and economic activities.

In addition, the 1950 census has adopted a new definition of the urban population which includes, in addition to incorporated places of 2,500 or more (*a*) residents of densely settled but unincorporated suburban fringes about large and medium size cities, and (*b*) residents of other unincorporated places of 2,500 or more. Although the metropolitan district was formerly used to measure the suburban population about larger cities, it was never given a place in the rural-urban classification of the census. In 1950 the new fringe delimitation, together with data for the central city, permits an explicit statement, in rural-urban terms, of the total population of large urban clusters. These clusters are called urbanized areas.

The purpose of this monograph is to help familiarize those who use population statistics

with the results which these new definitions yield, and to provide background information about S. M. A.'s by analyzing trends in metropolitan growth over the half-century 1900-50. The data for this task were obtained from the 1950 census and by combining county statistics from previous censuses.

Standard metropolitan areas

In this study, S. M. A.'s of 1950 are divided into six classes, according to the census at which they probably would have become S. M. A.'s with 100,000 inhabitants or more if the new 1950 definition had been applied at each census since 1900.³ A seventh class, for S. M. A.'s of all sizes, is also recognized. A variety of statistics relating to population growth from 1900 to 1950 is presented for each of the seven classes.

In 1900, 24.2 million persons (32 percent of the total population of the United States) lived in the 52 areas which would have been classified as S. M. A.'s. In 1950, 86 million (57 percent of the national population) lived in the 162 S. M. A.'s or their county equivalents. During this half-century, the population of the Nation nearly doubled in size, but the S. M. A. population became 3½ times its 1900 size. Although the S. M. A.'s, as constituted in 1950, contained only 40 percent of the population in 1900, during the last 50 years they have received 73 percent of the Nation's increase in population.

About two-thirds (64 percent) of this extraordinarily rapid growth was contributed by the 52 areas which would have been S. M. A.'s in 1900. One-fifth (21 percent) came from changing the classification of population from nonmetropolitan to metropolitan at the time additional areas have qualified as S. M. A.'s. The remainder (15 percent) came from the growth

¹ The abbreviation S. M. A. will be used for standard metropolitan area in this report.

² New England is an exception. There town rather than county lines were used as boundaries. In order to obtain comparability between areas at several censuses for a variety of data, the New England areas are arbitrarily redelimited to their nearest county equivalent for this study. Because two or more New England S. M. A.'s sometimes are located in a single county-equivalent area, the 168 S. M. A.'s are here reduced to 162. For details, see ch. I.

³ For the method of applying the new definition to earlier censuses, see ch. II.

of these added metropolitan areas during the decades following their entrance into the metropolitan status.

A comparison of growth rates for S. M. A.'s with growth rates for metropolitan districts shows that for the 1930-40 decade the two types of areas have about the same efficiency in measuring metropolitan growth. In the 1940-50 decade much metropolitan growth has taken place in areas outside metropolitan districts. For this reason, the larger S. M. A. is probably now a more useful unit of area for general metropolitan analysis than the metropolitan district.

Central cities have grown less rapidly than the balance of the S. M. A.'s, 1940-50. This is a continuation of a trend which began in the largest areas about 1910-20 and was present in most areas by 1930-40. The preceding era of compact metropolitan growth gave way, during the 1920's and 1930's, to a much more extended type of growth covering a wider area.

Within the rings of metropolitan areas (the part outside central cities) the rural parts have been growing more rapidly during the past two decades than the urban parts. This means that suburban residential development has been taking place primarily in unincorporated areas outside central cities. This is one of the trends which has made it necessary for the Census to revise the definition of urban population to include closely built up and densely settled areas which are not incorporated as cities or villages, and hence were being treated as rural under the old definition.

Metropolitan growth was much more rapid in the regions of the West and South than in the Northeast and the North Center during the 1940-50 decade. Whereas the West grew by a continuation of the great westward migrations, the metropolitan development of the South took place largely by an internal redistribution of population in which many non-metropolitan areas lost population while metropolitan areas grew rapidly.

There is a tendency for the rate of growth of S. M. A.'s to decline, relative to other metropolitan areas, once they have attained a size of one million inhabitants or more. Until this

point is reached, however, size does not appear to limit metropolitan growth in any consistent way.

There is no evidence of slower growth in metropolitan areas during the past decade as a result of the threat of atomic warfare. Size of area is a factor in determining the internal pattern of population growth and population distribution within metropolitan areas. In general, the larger the S. M. A., the more readily the ring tends to grow in comparison with the central city. In larger metropolitan areas the rate of growth in rural parts of rings tends to surpass the rate of growth of the urban parts.

The tendency toward suburban, more peripheral, growth varies from one region to another. With the factor of size controlled, this type of growth is a more pronounced characteristic of the Northeast and North Center regions than of the South and West.

An examination of several possible factors associated with metropolitan growth shows that fertility, size of S. M. A., age of S. M. A., degree of industrial development, and rate of industrial growth bear no simple and direct relationship to the rate of metropolitan growth. Either no relationship appears to exist, or if it does exist, it operates in a unique regional context which does not permit generalization on the national level. The reasons for area-to-area variations in metropolitan growth and in the growth of suburban areas are still largely unknown.

Urban population and urbanized areas

The new definition of urban population had the net effect of adding 7.5 million persons to the urban and removing this many from the rural population. This represents an increase of 8.5 percent in the urban population and a decrease of 12.2 percent in the rural.

Of the total net increase to the urban population which resulted from the change of definition, 82 percent was contributed by the new urban fringe delimitation, and 18 percent was contributed by the recognition of other places of 2,500 or more as urban.

Large urbanized areas tend to have a much greater proportion of their total population located in fringe areas than do smaller urbanized areas. The urban fringe of the larger areas consists predominantly of satellite cities, whereas the fringe of the smaller areas consists predominantly of unincorporated area.

Under the new urban-rural classification, only 13.6 percent of the total population of S. M. A.'s is rural, whereas under the old classification, more than 20 percent would have been classed as rural. The new urban classification had the net effect of transferring more than one-sixth of the total population of metropolitan rings from the rural to the urban category. About 95 percent of this change is due to the new urban fringes, and only 5 percent is due to the new unincorporated area rule.

The average population per square mile of urban fringes is 3,200, while that of the rings of S. M. A.'s is only 174. This unusually low density of the outer portion of S. M. A.'s is due to the fact that the use of the county unit includes much farmland, wasteland, and other

low-density area within the metropolitan area. Where density statistics are needed to compare large urban clusters (central cities and immediate environs) it is believed that data for urbanized areas will usually be found to be more useful than those for S. M. A.'s.

Conclusion

It is too early to evaluate fully the utility of the S. M. A.'s and the new urban definition in furthering urban and metropolitan research, planning, and administration. The data assembled for this analysis provide proof that a change from the old definitions was badly needed, and that the changes which were made greatly improved the quality of the 1950 statistics. Research and general use by a wide variety of interested persons during the next few years will be required before a final judgment can be made as to whether the new definitions are the best and most practicable ones under present and foreseeable trends in population growth and distribution.

CHANGES IN METROPOLITAN AND URBAN DEFINITIONS MADE FOR THE 1950 CENSUS

THE 1950 CENSUS has introduced two new major area concepts into economic and social statistics: *S. M. A.'s* and *urbanized areas*. Together these new units of area create a revolutionary change from the 1940 and earlier censuses. *S. M. A.'s* replace the well-known metropolitan districts which had been in use since the census of 1910. Under the newly established urbanized areas classification, the inhabitants of a variety of places located in the suburbs of cities of 50,000 or more are removed from the rural category and added to the urban population. This makes the urban population, as defined in 1950, noncomparable with that used in several earlier censuses which had been extended back to 1790. Changing to these new definitions, therefore, means abandoning 40 years of thinking and research done in terms of metropolitan districts, and breaking the chain of continuity in urban population statistics in such a way that data for 1950 and later censuses can be only roughly linked to data for the preceding 160 years.

These changes were not made irresponsibly, however. They were formulated in response to numerous expressions of dissatisfaction with the units of area used in previous censuses, and were adopted in an effort to eliminate serious deficiencies which were impairing the usefulness and meaningfulness of census data.

The problems which gave rise to these new classifications had become so widespread that a change from the old categories was inevitable, if not in 1950 then at a later census. It is too early yet to pass final judgment on the new area program. The major effort now should be to understand what was done and why, and to examine the results.

The present monograph is designed to assist in making the transition from the old to these new units of area. It undertakes to explain *S. M. A.'s* and urbanized areas in terms of the weaknesses they are designed to correct and the goals their use may achieve. The balance of chapter I is devoted to providing a brief background of the problem of delimiting metropolitan and urban areas, and to explaining the new delimitations as they fit into the entire Federal program of social and economic statistics. Chapters II and III are a first step in finding out how the new areas work in practice.

In order to reestablish the continuity which was lost in abandoning the metropolitan district units, statistics for number of inhabitants in *S. M. A.'s* at each census since 1900 have been compiled and are presented and analyzed in chapter II. The analysis covers not only the growth by decades from 1900 to 1950 of population in *S. M. A.'s* as whole units, but also the population growth in the principal parts of *S. M. A.'s*—the central cities, the suburban cities, and the remainder of the metropolitan areas. It is hoped that this compensates, at least in part, for the discontinuance of the 1900-40 series of metropolitan district data.

Chapter III deals with urbanized areas and the new definition of urban population. It summarizes the results obtained by the new urban classification and compares them with the results which would have been obtained had the old definition of urban population been retained. This chapter also undertakes to integrate statistics for the *S. M. A.'s* and urbanized areas.

Chapter IV illustrates how the principles of chapters II and III may be applied to the study

of population trends in individual S. M. A.'s.

At this point it should be emphasized that the interpretations made throughout the report are not necessarily those of any Federal agency. Although the report has been checked with the Federal agencies for the accuracy of the facts it contains, the conclusions which are reached on the basis of these facts are judgments of the author.

Background of the problem

During recent decades such a large share of new residential, industrial, and commercial growth has taken place in areas adjacent to large cities, rather than in the cities themselves, that the city proper has become only the central core of a much larger metropolitan area. Those who assemble and make use of statistics for major cities began several years ago to abandon the city as the principal unit for observation. They devised new boundaries, lying outside the city limits, which were a more realistic delimitation of the "greater city," including its residential, industrial, and commercial appendages which had been located outside the legal boundaries. Because agencies of the Federal Government provide a large share of the basic statistics available for local areas, they have been confronted with this problem of setting boundaries to the expanding metropolitan area, and of using such boundaries in publishing a variety of official statistics. Many uses are made of data for these larger areas, and the users have many interests. Consequently, the opinions of what constitutes realistic and appropriate metropolitan boundaries have been varied and difficult to reconcile. Furthermore, peripheral growth has been consistently more spectacular in rate and distance from the central city, and has involved a wider variety of activities, than seemed probable a decade or so earlier. For these reasons, some decisions which seemed to be justified at one time appeared to be inadequate after a very few years. Inasmuch as Federal statistics are prepared in the interests of the general public, they must be tabulated for units of area which satisfy the greater number of users. Hence, this problem

of reconciling varied interpretations of what constitutes the metropolitan area must be confronted even while the area itself is undergoing rapid change.

The Bureau of the Census of the United States Department of Commerce provides such a large share of the basic statistics for areas that whatever definitions are adopted for a particular census tend to establish the general practice for the ensuing decade. Those who rely entirely upon the census for data have no other choice. Even agencies collecting series of data of their own tend to adopt Bureau of the Census concepts and definitions, for the value of their own statistics is greatly increased by making their data comparable with census data. Hence, the problem of satisfactorily delimiting metropolitan areas, and of choosing from among the several possible methods of delimiting metropolitan areas, has been one of primary concern to the Bureau of the Census. This has been true since 1910 when the first attempt was made by the Bureau of the Census to delimit such areas.

To resolve the problem of presenting statistics for the largest cities and their environs in the 1910 census, the "metropolitan district" was devised. This was the first official attempt to recognize that large functional portions of major cities lie outside their legal boundaries. As originally defined, each metropolitan district consisted of a city of 200,000 inhabitants or more plus those minor civil divisions (townships and urban places) in the adjacent territory which had a density of 150 or more per square mile.¹ Minor exceptions to the minimum density requirement were allowed in order to avoid undue irregularity in the shape of the districts. Twenty-five areas qualified as metropolitan districts in 1910. This definition was also used to define 29 metropolitan districts at the census of 1920. For the 1930 census the minimum size limitation was lowered from 200,000 for the central city alone to 100,000 for the central city and adjacent areas combined, provided that the central city had a population

¹ *Thirteenth Census of the United States: 1910*, vol. I, p. 73. This definition also included the limitation that only those minor civil divisions within 10 miles of the boundaries of the central city could be included in the metropolitan district.

of at least 50,000. Under this revised definition there were 97 metropolitan districts.² In 1940 the 1930 definition was again used. By this time, suburbanization had become so commonplace among all medium-size and larger cities, that 43 additional metropolitan districts were established. This extensive peripheral growth took place between 1930 and 1940 in spite of the fact that the growth rate of the Nation's population was at its lowest point in the Nation's history and that most central cities grew comparatively little. A total of 140 metropolitan districts were recognized in 1940.

As a consequence of the changed definition of the metropolitan district between 1910 and 1940, and of the steadily increased number of places which qualified, the summaries which had been prepared for the various censuses were not comparable with each other. The establishment of trends from one period to the next was rendered even more difficult because of redistricting, annexations, and other boundary changes. In 1948, Warren S. Thompson completed a special study in cooperation with the Bureau of the Census which established comparability among the metropolitan district delimitations for the four censuses, 1910-40. Data from earlier censuses were regrouped to conform to later definitions. Special estimates were made to eliminate the effects of certain classes of annexations and redistricting. This study systematized the entire subject of population growth in metropolitan districts, and is the authoritative source of data in this field.³

In spite of the experimentation and work put into them, the metropolitan districts were abandoned as major units for which data are to be published for the 1950 census. Their

place has been taken by the S. M. A.'s and the urbanized areas. A variety of problems could be solved by making this change; some of the more important of which are as follows:

(a) *The comparability of Government statistics could be greatly increased.*—For many years, users of Federal statistics have complained that data collected by one bureau or agency frequently are not comparable with related data collected by another bureau or agency. One troublesome source of noncomparability has been the use of noncomparable areas. In dealing with the suburbanization of manufacturing, for example, the Census of Industry had devised "industrial areas" which consisted of cities, plus one or more whole counties. The more narrowly defined metropolitan districts were ill suited for preparing statistics of manufacturing. They were similarly inadequate for reporting statistics collected by some of the other Federal agencies. A unit of metropolitan area was needed which could be adopted as standard by all Federal agencies. All interested agencies participated in the delimitation of the S. M. A.'s. Hence these areas represent the achievement of such a generally accepted delimitation.

(b) *The urban population could be defined more realistically.*—At the beginning, the metropolitan district population was apparently intended to be analyzed and interpreted as urban population. It was assumed that population living outside urban places but within the metropolitan district was different from the rural population outside the suburban area. It was further assumed that this rural suburban population was similar to the urban population as it was then defined. This fact is unmistakable from the definitions given in the various censuses.⁴ Yet neither the Bureau of the Census nor the major users of census data explicitly recognized this assumption by incorporating the metropolitan district definition into the official Bureau of the Census definition of

² *Fifteenth Census of the United States: 1930. Metropolitan Districts*, p. 6. Only 96 districts were recognized in 1930. In 1940 the Providence-Fall River-New Bedford metropolitan district was split into 2 separate districts, making a total of 97 under the 1930 definition as modified in 1940.

³ Warren S. Thompson, *The Growth of Metropolitan Districts in the United States: 1900-40*, in cooperation with the Bureau of the Census (Government Printing Office, 1948). This monograph contains a complete description of the trends in the growth of metropolitan districts, together with chapters dealing with factors affecting the redistribution of population within metropolitan districts, the demographic significance of the growth of metropolitan districts, and the future growth of areas which would qualify as metropolitan districts. It is a most complete history and explanation of metropolitan growth prior to 1950.

⁴ The following quotation from the Census of 1910 may be taken as an example: "Where the density was less than [150 per square mile] that [minor civil] division was considered as rural rather than urban in character, and as not properly a part of the metropolitan district." *Thirteenth Census of the United States: 1910*, vol. I, p. 73.

the urban population. Nor did they give it a position in the rural-urban hierarchy. It would have been possible to have recognized the nonurban part of the metropolitan district population as a separate "suburban" category, thereby yielding the following four-fold urban-rural classification: urban, suburban, rural-nonfarm, and rural-farm.

Perhaps an outright classification of the entire metropolitan district as urban seemed too extreme in 1910. Even the creation of a separate category for the suburban population also may have seemed unnecessary at that time, for the automobile was still a novelty and city growth was still fairly compact and dense. The decision whether to classify as urban this outlying suburban population, which in recent decades has captured such a large share of growth, could be arrived at only after intensive research had been made into the composition and mode of life of the populations occupying various positions in the suburbs. This research was never undertaken. Consequently, the basic ideas underlying the metropolitan districts delimitation were not put to a rigorous test. The metropolitan districts were allowed to exist as special units which did not fit into the larger scheme of census definitions and concepts. They lived and died without being generally used and interpreted in terms of the ideas which brought them into existence. Hence, it was to be expected that they would be abandoned eventually in favor of some new areas which were not a special exception, but which readily could be integrated into the balance of the census program. The new urbanized area delimitation makes a more realistic separation of the urban and rural populations. This leaves the S. M. A.'s free to be given a broader definition.

(c) *The more inclusive metropolitan area could be recognized.*—Numerous users of official statistics had felt a need for a unit of area which was broader in scope than the metropolitan districts. Economists concerned with labor market areas or transportation, engineers and housing groups interested in commuting, for example, found that much of the popula-

tion growth and activities with which they were concerned lay outside the metropolitan district boundaries. The spread of large manufacturing establishments into open-country areas near large cities, which made metropolitan districts unsatisfactory units for a census of manufactures, has already been mentioned. Thus, while there was apprehension in some quarters that a density of 150 per square mile may be too low to be used as a definition of urban population, there was a conviction in other quarters that this minimum density in the environs of large cities excluded a great many activities and conditions which properly should be classed as metropolitan.

In the 1950 census, the problems described were faced squarely, and were resolved in a manner calculated to permit the orderly accumulation of meaningful statistics separately for metropolitan areas and for urban populations for a long period of time to come.

Standard metropolitan areas

The official definition⁵ of S. M. A.'s is as follows:

Except in New England, a standard metropolitan area is a county or group of contiguous counties which contains at least one city of 50,000 inhabitants or more. In addition to the county, or counties, containing such a city, or cities, contiguous counties are included in a standard metropolitan area if according to certain criteria they are essentially metropolitan in character and socially and economically integrated with the central city.

The criteria of metropolitan character relate primarily to the character of the county as a place of work or as a home for concentrations of nonagricultural workers and their dependents. Specifically, these criteria are:

1. The county must (a) contain 10,000 nonagricultural workers, or (b) contain 10 percent of the nonagricultural workers working in the standard metropolitan area, or (c) have at least one-half of its population residing in minor civil divisions with a population density of 150 or more per square mile and contiguous to the central city.

2. Nonagricultural workers must constitute at least two-thirds of the total number of employed persons of the county.

⁵ Bureau of the Census. *U. S. Census of Population: 1950*, vol. I, *Number of Inhabitants*, ch. 1 : U. S. Summary. U. S. Government Printing Office, Washington, D. C., 1952, p. xxxi.

The criteria of integration relate primarily to the extent of economic and social communication between the outlying counties and the central county as indicated by such items as the following:

1. Fifteen percent or more of the workers residing in the contiguous county work in the county containing the largest city in the standard metropolitan area, or
2. Twenty-five percent or more of the persons working in the contiguous county reside in the county containing the largest city in the standard metropolitan area, or
3. The number of telephone calls per month to the county containing the largest city of the standard metropolitan area from the contiguous county is four or more times the number of subscribers in the contiguous county.

These areas differ from the metropolitan districts in two important respects. (a) Whereas the metropolitan districts consisted of whole townships or towns, the S. M. A.'s consist of whole counties. (b) Whereas population density was the principal criterion for including additional units of area in metropolitan districts, possession of metropolitan characteristics and close social and economic integration with the metropolis is the basis for determining whether contiguous counties are to be included as a part of S. M. A.'s. The joint effect of these changes is to increase the size of the metropolitan area.

Such a broader delimitation acknowledges that nearby rural-farm and rural-nonfarm as well as urban populations are integrated into the economy of the central city. Villages and other rural-nonfarm residences far outside the built-up portion of the city may consist largely of homes of commuters who work in the city or its suburbs. The labor market area of metropolitan centers is known to be much more extensive than the built-up area. Living on a suburban farm has become a very common residential adjustment for many urban workers. Commuting to work from a distance of 15 miles outside the limits of the central city is not at all infrequent, even for residents of the smaller S. M. A.'s. Village and other rural-nonfarm clusters outside the densely settled part of the city also may contain businesses catering to the flow of traffic into and from the city, or establishments producing for, or otherwise con-

nected with, firms in the city. Economically, socially, and demographically such groups are most realistically thought of as belonging to the metropolitan area rather than to the category of open-country villages and farm shopping centers.

Hence, the use of the county as a unit of area (which forces the inclusion of large blocks of population and area) and the use of the concept of economic and social integration of such large units tend to produce a much larger metropolitan area than the metropolitan district. *The validity of this broader delimitation is supported by a voluminous body of research, extending over several decades. In fact, the establishment of S. M. A.'s represents the recognition in official Government statistics of repeated assertions that the area of "daily contact" or the "zone of direct participation" with the metropolis is a social and economic unit worthy of widespread attention.* Numerous studies of the metropolitan area had demonstrated that this was a most worthwhile and informative point at which to delimit the "primary metropolitan area." Although it is generally recognized that the influence of the metropolis extends many miles into the hinterland, at some point less than 30-40 miles from the central city the nature of this influence shifts from one of direct participation to one based on economic division of labor and exchange.⁶ Furthermore, it has been demonstrated that the growth of population around the periphery of metropolitan cities has overflowed the boundaries of the metropolitan district and is now taking place in a much broader area outside.⁷ Therefore, the need for broadening the scope of the metropolitan area has been indicated not only by studies of the social and economic structure of the metropolitan area, but by the greater radius of metropolitan growth as well.

⁶ For statistical evidence, see Donald J. Bogue, *The Structure of the Metropolitan Community*. (Ann Arbor, University of Michigan Press, 1949.) Also, R. D. McKenzie, *The Metropolitan Community* (McGraw-Hill, 1933), and National Resources Committee, *Regional Planning; Part II—St. Louis Region*. (Government Printing Office, 1936.)

⁷ Donald J. Bogue, *Metropolitan Decentralization: A Study of Differential Growth* (Oxford, Ohio: Scripps Foundation Studies in Population Distribution, 1950).

Some experts in the fields which require data for metropolitan areas may object to this particular delimitation on the grounds that the indexes which were used in establishing S. M. A.'s are crude, and were not validated by previous research before being applied. It should be remembered, however, that in addition to the formal rules, the judgments of local organizations, both in central cities and in outlying counties, were solicited and considered in arriving at the delimitation. By weighing the subjective but experienced judgments of the best informed and best qualified local groups in the light of the indications of the indexes, a result was obtained which, in most cases, was probably identical with or very close to what would have been obtained had a more elaborate (and hence more costly) study been made using county units. It should be readily admitted that using the county unit as a "built-in" guarantee that the full scope of the integrative influence of the metropolitan center would be delimited was a very gross procedure. Having to exclude entire counties where they barely failed to qualify because of peculiar combinations of circumstances undoubtedly produced less precise delimitations for some areas than for others. The average result, however, was to establish units of area which are more suitable than metropolitan districts for use by those doing research or administrative work in the field of metropolitan labor markets, metropolitan housing, metropolitan transportation, metropolitan marketing, or metropolitan population growth and distribution. Considerable variation could be present in the delimitation of the outer boundaries of these larger areas without greatly impairing the usefulness of the result. This is true because there is no single point at which the "zone of direct daily participation" ends and the hinterland begins. The two are mingled in a broad area several miles wide. If one drew the boundary at the absolute outer limits of commuting, for example, it would include much area which, by most other standards, would be considered non-metropolitan. Hence, the fact that the S. M. A.'s were arrived at by a somewhat informal procedure rather than by rigorous sta-

tistical research should not lead to the conclusion that because of it they are not useful or meaningful. The results obtained in actual use provide a much better test.

In New England, S. M. A.'s were delimited along town rather than along county lines. The Bureau of the Census⁸ states that:

In New England, the city and town are administratively more important than the county, and data are compiled locally for such minor civil divisions. Here, towns and cities were the units used in defining standard metropolitan areas, and criteria relating to the number and proportion of nonagricultural workers set forth above could not be applied. In their place, a population density criterion of 150 or more persons per square mile, or 100 or more persons per square mile where strong integration was evident, has been used.

Applying this alternative definition of the S. M. A.'s: in terms of towns rather than counties had the effect of retaining in New England the metropolitan district concept which was abandoned for the remainder of the Nation. In several cases, in fact, the S. M. A.'s in New England are smaller than were the corresponding metropolitan districts. Hence, the delimitation for S. M. A.'s failed to achieve its objective in New England, and the areas there are not comparable with those in the other regions.

In delimiting the state economic areas, metropolitan areas were separately identified. The S. M. A.'s were generally adopted as metropolitan state economic areas also if they contained a total population of 100,000. An exception to this is that the New England delimitation for S. M. A.'s was not recognized in the state economic areas delimitation. Instead, the closest possible approximation in terms of whole counties was made.⁹ This placed the New England delimitation upon the same basis as the remainder of the Nation and eliminated the confusion between "urban" and "metropolitan" which exists in the present S. M. A.'s there. In this report and in those which will follow in this series, full and complete statistics from the last census will be given for the S. M. A.'s of New England as delimited along town lines. How-

⁸ Bureau of the Census, *U. S. Census of Population: 1950*, op. cit., p. xxxi.

⁹ Donald J. Bogue, *State Economic Areas*, Bureau of the Census, U. S. Government Printing Office, 1951, p. 6.

ever, data for the county-equivalents, as delimited for state economic areas, are also shown. In all summary tables where comparisons are made between regions, between size-groups of S. M. A.'s, or between other classifications for the entire Nation, the county-equivalents will be substituted for the town-delimited S. M. A.'s of New England.¹⁰ This is necessary for two reasons. First, it is the only way to make reliable comparisons among all regions. If the town-delimited areas for New England are used, an unknown part of all differences between the S. M. A.'s of New England and those of any other region must be attributed to the difference in method of delimitation. Second, using the county-equivalents makes it possible to establish growth trends for New England. County data from previous censuses may be combined to establish S. M. A. summaries for earlier dates. Statistics for retail trade, wholesale trade, service establishments, and manufactures are not available for New England towns, although they are available for New England counties. Hence, adopting the county-equivalents to the S. M. A.'s of New England permits the systematic analysis of trends there as in other regions. Since the making of interregional comparisons and the measurement of change are two of the major objectives of this and the other monographs which are to follow, the success of the studies depends upon using the county-equivalents for S. M. A.'s in New England in the analytical phases.

Urbanized areas

The urbanized area consists of a city of 50,000 or more (at the 1940 census or at a subsequent special census) plus the thickly settled urban fringe built up around it.

An urbanized area is an area that includes at least one city with 50,000 inhabitants or more in 1940 or later according to a special census taken prior to 1950 and also the surrounding closely settled incorporated places and unincorporated areas that meet the criteria listed below. Since the urbanized area outside of incorporated places was defined on the basis

of housing or population density, its boundaries for the most part are not political but follow such features as roads, streets, railroads, streams, and other clearly defined lines which may be easily identified by census enumerators in the field. The urbanized area boundaries were selected after careful examination of all available maps, aerial photographs, and other sources of information, and then were checked in detail in the field by trained investigators to insure that the criteria were followed and that the boundaries were identifiable. * * *

The urban fringe of an urbanized area is that part which is outside the central city or cities. The following types of areas are embraced if they are contiguous to the central city or cities or if they are contiguous to any area already included in the urban fringe:

1. Incorporated places with 2,500 inhabitants or more in 1940 or at a subsequent special census conducted prior to 1950.
2. Incorporated places with fewer than 2,500 inhabitants containing an area with a concentration of 100 dwelling units or more with a density in this concentration of 500 units or more per square mile. This density represents approximately 2,000 persons per square mile and normally is the minimum found associated with a closely spaced street pattern.
3. Unincorporated territory with at least 500 dwelling units per square mile.
4. Territory devoted to commercial, industrial, transportation, recreational, and other purposes functionally related to the central city.

Also included are outlying noncontiguous areas with the required dwelling unit density located within 1½ miles of the main contiguous urbanized part, measured along the shortest connecting highway, and other outlying areas within one-half mile of such noncontiguous areas which meet the minimum residential density rule.

Although an urbanized area may contain more than one city of 50,000 or more, not all cities of this size are necessarily central cities. The largest city of an area is always a central city. In addition, the second and third most populous cities in the area may qualify as central cities provided they have a population of at least one-third of that of the largest city in the area and a minimum of 25,000 inhabitants. The names of the individual urbanized areas indicate the central cities of the areas.¹¹

This major change in the definition of urban population was made in order to remove from the rural and add to the urban population the large and rapidly growing group of suburban dwellers in the vicinity of larger cities which lives under typically urban conditions but is located outside an incorporated place of 2,500.

¹⁰ For a list of the county-equivalents to the S. M. A.'s of New England, and of the counties which comprise each area, see appendix table 2.

¹¹ Bureau of the Census, *U. S. Census of Population: 1950*, op. cit., pp. xxiv-xxv.

By thus recognizing the compactly built-up part of the suburbs as being a part of the genuinely urban population, the urbanized area serves a function which formerly was approximated by metropolitan districts.

The overall effect of this delineating of urbanized areas is to add to the urban population and to remove an equivalent number from the rural. Chapter III explains in more detail the effect of the change in the definition of the urban population and its implications for the use of statistics for the urban population.

Residents of several cities which reached 50,000 for the first time in the 1950 census may

be disappointed to find that no urbanized area delimitation was made for their city, even though its suburban areas may be large and thickly settled. A great deal of work was required of the Census geographer to establish an urbanized area. Hence, this work was undertaken well in advance of the 1950 census. Those cities for which there were no census statistics to indicate that the city would probably be 50,000 in 1950 did not have urbanized areas delimited for them. Urbanized areas were delimited for 157 cities.

The following schematic diagram illustrates the various delimitations referred to above.

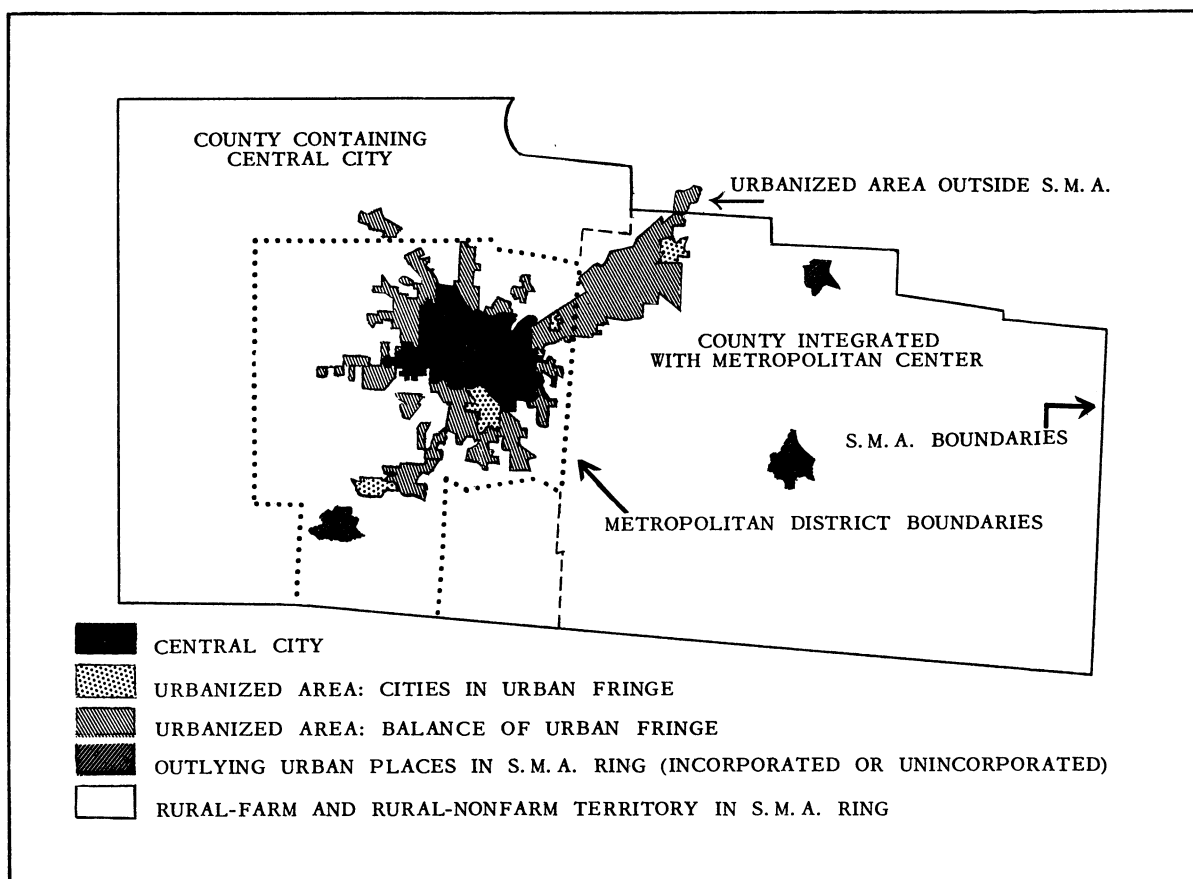


FIGURE 1.—Schematic diagram of relative sizes and arrangement of standard metropolitan areas, urbanized areas, and metropolitan districts.

GROWTH OF STANDARD METROPOLITAN AREAS: 1900-50

FROM 1900 TO 1950, the population of the United States nearly doubled in size. During this same period the population of areas which were defined as S. M. A.'s in 1950 increased far more rapidly; they grew 177.8 percent, or at a rate 80 percent faster than the nation (table 1). At each census since 1900, a greater share of the total population has been found to be living either in or in the immediate vicinity of metropolitan centers than lived there a decade earlier. This fact is documented in table 2. In 1900, about 32 percent of the total population lived in areas which would have met the 1950 definition of S. M. A. By 1950, this proportion had risen to 56.8 percent. As a consequence of this extraordinarily rapid expansion of population in S. M. A.'s, the nonmetropolitan areas lying outside have languished at much lower than average rates of growth. In the entire area outside the S. M. A.'s as defined in 1950, the percent of increase, 1900-50, was less than one-half that of the Nation. A great deal of even this comparatively small nonmetropolitan growth has been produced by the westward movement.

In order to study this long-term trend toward metropolitan aggregation more precisely, it is necessary to reconstruct the sequence of development as it actually occurred, insofar as possible. The present chapter attempts to do this.

Classes of standard metropolitan areas

The rapid gathering of the population into metropolitan areas is the joint accomplishment of two redistributive processes. (a) Already established metropolitan areas have grown

faster than the Nation. By capturing a larger than proportional share of the total national population increase, these areas have gradually accumulated a larger proportion of the Nation's population. (b) Certain medium-size and small cities have rapidly increased in size also, and consequently have risen to the metropolitan status. At each census since 1900, new metropolitan centers have made their appearance. Recognizing them as S. M. A.'s requires a transfer of their entire population from the non-metropolitan to the metropolitan classification. This depletes the proportion of the total population classed as nonmetropolitan and increases the proportion classed as metropolitan.

Before the trends toward metropolitan aggregation can be interpreted accurately, each of these two sources of growth must be isolated and analyzed separately. In order to accomplish this separation of metropolitan growth into its components, the 162 S. M. A.'s have been grouped into classes, according to the census at which they probably would have first qualified as a S. M. A. had the 1950 definition been applied uniformly at each census since 1900. Those parts of the definition which refer to social and economic integration cannot be applied to the earlier censuses. If the nominal conditions of size of central city and of total population are met at any one decade, it can only be presumed that the condition of integration must also have existed at that date, and throughout the entire area designated as a S. M. A. in 1950. In other words, the date at which a central city and its environs is said to have passed from nonmetropolitan to metropolitan status must be determined by available evidence. The only part of the definition of

S. M. A.'s for which evidence may be obtained is that pertaining to size. Therefore, if the size requirements are met at a census, then it has been assumed that the conditions of integration, for which no evidence is available, also existed at that time. Furthermore, it has been assumed that this integrative influence included all counties contained in the S. M. A. in 1950, for there is no valid basis for determining which counties were integrated with the metropolis at an earlier date.

This extension backward of 1950 boundaries to earlier censuses is most valid for the large and least valid for the small S. M. A.'s. It is questionable whether such an extension would yield meaningful results in cases where the total population of the area is less than 100,000. Hence, for purposes of classifying them according to the census at which they first qualified, S. M. A.'s have been divided into two types: "principal S. M. A.'s" (those with a central city of 50,000 inhabitants and a total population of 100,000 or more at a given census) and "secondary S. M. A.'s" (those with total population of less than 100,000 at a given census).¹

In 1900, 52 of the S. M. A.'s, as delimited in 1950, would have qualified as principal S. M. A.'s under the assumptions stated above. This group of S. M. A.'s is designated as class I.² By 1910, 71 of the areas would have qualified; they are designated as class II. Similar successive classes were established for principal S. M. A.'s as of 1920, 1930, 1940, and 1950, and are identified as classes III, IV, V, and VI, respectively. The total for all S. M. A.'s, as delimited in 1950 (both primary and secondary S. M. A.'s combined, with county-equivalent

areas for New England) is shown as class VI-A.

One area, St. Joseph, Missouri, contained a central city of more than 50,000 and a total population of more than 100,000 in 1900, but lost population thereafter and has failed to qualify as a principal S. M. A. at any subsequent census. Throughout this study, it is treated as a secondary S. M. A.

The identification of the classes, and the number of S. M. A.'s falling within each class, are:

Class	Number of areas	Areas comprising the class
I-----	52	Principal S. M. A.'s of 1900.
II-----	71	Principal S. M. A.'s of 1910 and earlier.
III-----	94	Principal S. M. A.'s of 1920 and earlier.
IV-----	115	Principal S. M. A.'s of 1930 and earlier.
V-----	125	Principal S. M. A.'s of 1940 and earlier.
VI-----	147	Principal S. M. A.'s of 1950 and earlier.
VI-A-----	162	All S. M. A.'s of 1950.

A list of the S. M. A.'s belonging in each class follows:

CLASS I (52)

Albany-Schenectady-Troy, N. Y.	Kansas City, Mo.
Atlanta, Ga.	Los Angeles, Calif.
Baltimore, Md.	Louisville, Ky.
Boston-Lawrence-Lowell, Mass.	Manchester, N. H.
Bridgeport-Stamford-Norwalk, Conn.	Memphis, Tenn.
Buffalo, N. Y.	Milwaukee, Wis.
Chicago, Ill.	Minneapolis-St. Paul Minn.
Cincinnati, Ohio.	Nashville, Tenn.
Cleveland, Ohio.	New Haven - Waterbury, Conn.
Columbus, Ohio.	New Orleans, La.
Dayton, Ohio.	New York—Northeastern New Jersey.
Denver, Colo.	Omaha, Nebr.
Detroit, Mich.	Peoria, Ill.
Duluth, Minn.—Superior, Wis.	Philadelphia, Pa.
Fall River-New Bedford, Mass.	Pittsburgh, Pa.
Grand Rapids, Mich.	Portland, Maine.
Harrisburg, Pa.	Portland, Oreg.
Hartford-New Britain-Bristol, Conn.	Providence, R. I.
Indianapolis, Ind.	Reading, Pa.
	Richmond, Va.
	Rochester, N. Y.
	St. Louis, Mo.

¹ Some students of metropolitan areas regard the practice of classifying as S. M. A.'s places having less than 100,000 inhabitants as an abuse of the term "metropolitan." They would fix the absolute lower limit of any metropolitan area at about the point chosen here for designating "principal" S. M. A.'s. If the term "metropolitan area" is to retain its original meaning, some subclassification such as "primary" and "secondary" must be used to compensate for the fact that the Bureau of the Census is asked to recognize as S. M. A.'s many small places which lack most of the qualities associated with metropolitan centers.

² In all classes, the S. M. A.'s of New England are taken as the county-equivalent areas (metropolitan state economic areas) rather than as the town-boundary areas, for the reasons stated in chapter I. See appendix table 2-B for a list of the county-equivalent areas.

CLASS I (52)—Continued

San Francisco-Oakland, Calif.	Toledo, Ohio.
Scranton, Pa.	Utica-Rome, N. Y.
Seattle, Wash.	Washington, D. C.
Springfield-Holyoke Mass.	Wilkes-Barre-Hazleton, Pa.
Syracuse, N. Y.	Wilmington, Del.
	Worcester, Mass.

CLASS II (71)

Akron, Ohio.	Houston, Tex.
Allentown-Bethlehem-Easton, Pa.	Johnstown, Pa.
Altoona, Pa.	Norfolk-Portsmouth, Va.
Birmingham, Ala.	Salt Lake City, Utah.
Brockton, Mass.	San Antonio, Tex.
Canton, Ohio.	Spokane, Wash.
Dallas, Tex.	Tacoma, Wash.
Des Moines, Iowa.	Trenton, N. J.
Erie, Pa.	Youngstown, Ohio.
Fort Worth, Tex.	(and all S. M. A.'s of class I).

CLASS III (94)

Augusta, Ga.	Mobile, Ala.
Binghamton, N. Y.	Oklahoma City, Okla.
Charleston, S. C.	Saginaw, Mich.
Chattanooga, Tenn.	San Diego, Calif.
Davenport, Iowa—Rock Island-Moline, Ill.	Savannah, Ga.
El Paso, Tex.	South Bend, Ind.
Flint, Mich.	Springfield, Ill.
Fort Wayne, Ind.	Tampa-St. Petersburg, Fla.
Huntington, W. Va.—Ashland, Ky.	Tulsa, Okla.
Jacksonville, Fla.	Wheeling, W. Va.—Steubenville, Ohio.
Knoxville, Tenn.	(and all S. M. A.'s of class II).
Lancaster, Pa.	
Little Rock-North Little Rock, Ark.	

CLASS IV (115)

Atlantic City, N. J.	Madison, Wis.
Beaumont-Port Arthur, Tex.	Miami, Fla.
Charleston, W. Va.	Roanoke, Va.
Charlotte, N. C.	Rockford, Ill.
Evansville, Ind.	Sacramento, Calif.
Fresno, Calif.	San Jose, Calif.
Greensboro-High Point, N. C.	Shreveport, La.
Hamilton-Middletown, Ohio.	Sioux City, Iowa.
Lansing, Mich.	Wichita, Kans.
Lincoln, Nebr.	Winston-Salem, N. C.
	York, Pa.
	(and all S. M. A.'s of class III).

CLASS V (125)

Asheville, N. C.	Columbia, S. C.
Austin, Tex.	Columbus, Ga.

CLASS V (125)—Continued

Jackson, Miss.	Stockton, Calif.
Kalamazoo, Mich.	Waco, Tex.
Montgomery, Ala.	(and all S. M. A.'s of class IV).
Phoenix, Ariz.	

CLASS VI (147)

Albuquerque, N. Mex.	Orlando, Fla.
Baton Rouge, La.	Pittsfield, Mass.
Cedar Rapids, Iowa	Racine, Wis.
Corpus Christi, Tex.	Raleigh, N. C.
Durham, N. C.	San Bernardino, Calif.
Galveston, Tex.	Springfield, Mo.
Greenville, S. C.	Springfield, Ohio
Jackson, Mich.	Terre Haute, Ind.
Lexington, Ky.	Topeka, Kans.
Lorain-Elyria, Ohio	Waterloo, Iowa
Lubbock, Tex.	(and all S. M. A.'s of class V).
Macon, Ga.	

CLASS VI-A (162)

Amarillo, Tex., 1930-40.*	Pueblo, Colo., 1920-30.
Bay City, Mich., 1940-50.	St. Joseph, Mo., 1890-1900.
Decatur, Ill., 1920-30.	San Angelo, Tex., 1940-50.
Gadsden, Ala., 1940-50.	Sioux Falls, S. Dak., 1940-50.
Green Bay, Wis., 1940-50.	Wichita Falls, Tex., 1940-50.
Kenosha, Wis., 1920-30.	(and all S. M. A.'s of class VI).
Laredo, Tex., 1940-50.	
Lima, Ohio, 1940-50.	
Muncie, Ind., 1940-50.	
Ogden, Utah, 1940-50.	

Population in standard metropolitan areas at each census since 1900

With the various classes of S. M. A.'s established, it is possible to estimate what the population of S. M. A.'s probably would have been at each census since 1900 had the 1950 definition been applied:

Year	Total population of United States	Population in S. M. A.'s	Population outside S. M. A.'s
1950 (class VI-A).....	150,697,361	85,572,096	65,125,265
1950 (class VI).....	150,697,361	84,296,957	66,400,404
1940 (class V).....	131,669,275	67,126,820	64,542,455
1930 (class IV).....	122,775,046	61,005,353	61,769,693
1920 (class III).....	105,710,620	46,058,708	59,651,912
1910 (class II).....	91,972,266	34,517,119	57,455,147
1900 (class I).....	75,994,575	24,105,084	51,889,491

In the above summary, classes I through VI represent principal S. M. A.'s only. In 1900,

*This and other dates given for class VI-A indicate decade during which area qualified or would have qualified as an S. M. A. by reason of size of central city.

24.1 million persons lived in principal S. M. A.'s. By 1950, this number had risen to 84.3 million. The two sources of metropolitan growth are not shown separately; hence, the totals report the growth of established S. M. A.'s and the population of S. M. A.'s newly added at that decade as a combined figure.

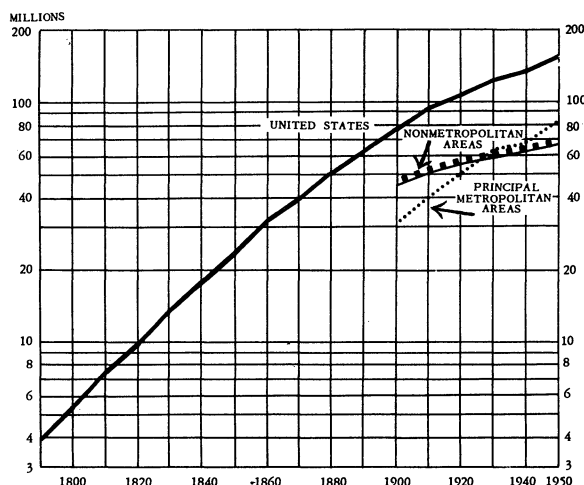


FIGURE 2.—Population of the United States: 1790 to 1950, and population of standard metropolitan and nonmetropolitan areas, 1900 to 1950.

As figure 3 and table 2 illustrate, the proportion of the national population which resides in principal S. M. A.'s has risen from slightly less than one-third (31.7 percent) in 1900 to considerably more than one-half (55.9 percent) in 1950.

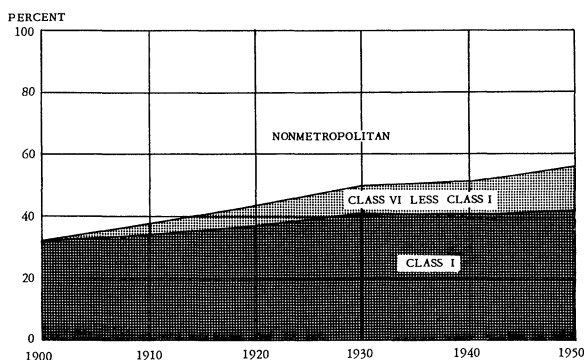


FIGURE 3.—Percentage of United States population in principal standard metropolitan areas, by decades, 1900 to 1950.

Sources of metropolitan growth

Tables 1, 2, and 3 report the growth experience of each of the classes of S. M. A.'s, for each decade from 1900 to 1950, and for the 1900–50 period as a single interval. Since, in these tables, the land area for each class remains constant throughout the entire half-century,³ the metropolitan growth in any one decade resulting from the growth of already established S. M. A.'s, may be determined by referring to the data for the appropriate class. The diagonal step-like lines in these tables separate the decades during which all S. M. A.'s of a class were principal S. M. A.'s from these decades in which only some of the members of the class were principal S. M. A.'s. Statistics to the left of this line are for principal S. M. A.'s only, whereas statistics to the right of it are for decades in which some S. M. A.'s in the class had not yet qualified as principal S. M. A.'s.

Thus, in order to analyze the growth of S. M. A.'s *with land area held constant*, a horizontal comparison should be made for the class of S. M. A.'s in which one is interested. In order to analyze the growth of S. M. A.'s *with definition of S. M. A. held constant*, the growth of the various classes for the decade immediately to the left of the diagonal line should be traced. (Growth data for decades one or more columns removed to the left of the diagonal line refer to the second, third, etc., decades after entrance into the principal S. M. A. status.)

The 52 areas of class I, those which would have been S. M. A.'s at the turn of the century, have grown faster than the Nation in all decades except 1930–40. While the population of the Nation was increasing 98.3 percent over the 50-year period, the population of the class I S. M. A.'s grew by 160.3 percent, or more than 60 percent faster. Each of the other classes has grown faster than the Nation also. From table 2, it may be noted that the original S. M. A.'s of class I contained 31.7 percent of the Nation's population in 1900, and 41.6 percent in 1950. *This demonstrates that the rapid*

³ Minor changes between censuses in county boundaries, which could not be controlled in all cases, introduce a small amount of area variation, but not enough to affect national and regional summaries to any appreciable extent.

Table 1.—Percent of increase in population of standard metropolitan areas and of nonmetropolitan urban and rural areas, by decades: 1900-1950

Area and class of standard metropolitan area	Percent increase					
	1940-50	1930-40	1920-30	1910-20	1900-10	1900-50
U. S. Total	14.5	7.2	16.1	14.9	21.0	98.3
Class VI-A: (162 areas)						
Standard metropolitan areas	21.8	8.5	27.1	25.4	32.0	177.8
Central cities	13.9	5.4	23.8	27.7	36.6	159.2
Rings	34.7	13.5	33.2	21.3	24.3	208.1
Urban	29.2	9.1	48.2	38.5	50.7	336.1
Rural	40.8	15.6	18.8	8.2	9.9	137.8
Area outside S.M.A.'s	6.0	5.9	6.0	6.7	13.6	44.1
Urban	25.8	14.0	22.0	26.2	39.5	208.2
Rural	-1.6	3.1	1.3	2.1	8.9	14.4
Class VI: (147 areas)						
Principal standard metropolitan areas	21.8	8.5	27.2	25.3	32.0	177.8
Central cities	13.7	5.3	23.8	27.5	36.4	157.5
Rings	34.8	14.0	33.6	21.4	24.8	211.0
Urban	29.1	9.2	48.3	38.4	51.1	337.1
Rural	41.3	19.8	19.0	8.3	10.0	140.1
Area outside S.M.A.'s	6.3	5.9	6.2	6.9	13.7	45.4
Urban	26.0	13.8	22.3	26.8	39.9	211.0
Rural	-1.4	3.1	1.4	2.2	8.9	14.6
Class V: (125 areas)						
Principal standard metropolitan areas	21.3	8.3	27.1	25.5	32.3	177.2
Central cities	13.0	5.1	23.6	27.4	36.2	154.8
Rings	34.7	13.8	33.9	22.0	25.8	214.9
Urban	28.8	9.1	48.4	38.8	51.3	338.0
Rural	41.8	19.8	18.9	8.4	10.6	142.1
Area outside S.M.A.'s	7.3	6.2	6.7	7.2	13.9	48.5
Urban	26.9	13.7	22.9	26.9	40.2	215.3
Rural	-0.9	3.4	1.6	2.2	8.7	15.8
Class IV: (115 areas)						
Principal standard metropolitan areas	21.0	8.1	27.0	25.5	32.5	176.1
Central cities	12.6	4.9	23.3	27.3	36.2	152.5
Rings	34.7	13.6	34.2	22.2	26.1	216.4
Urban	28.5	9.0	48.4	38.7	51.2	335.8
Rural	42.2	19.9	18.8	8.3	10.7	142.6
Area outside S.M.A.'s	7.9	6.4	7.1	7.4	14.0	50.5
Urban	27.5	14.0	23.5	27.3	40.2	220.4
Rural	-0.5	3.5	1.8	2.3	8.8	16.7
Class III: (94 areas)						
Principal standard metropolitan areas	20.3	7.7	26.5	25.2	32.3	171.3
Central cities	11.9	4.7	22.3	26.7	35.6	146.3
Rings	34.1	13.0	34.5	22.4	26.5	215.5
Urban	27.5	8.7	47.8	38.4	50.8	327.6
Rural	43.0	19.3	18.7	7.6	10.1	140.0
Area outside S.M.A.'s	9.1	6.9	8.2	8.1	14.5	56.0
Urban	28.1	13.8	25.9	28.7	41.4	234.0
Rural	0.4	3.9	2.1	2.5	8.9	18.9
Class II: (71 areas)						
Principal standard metropolitan areas	19.6	7.3	26.1	24.9	32.6	168.0
Central cities	11.3	4.4	21.2	25.7	35.3	139.6
Rings	33.4	12.6	35.9	23.2	27.6	220.6
Urban	27.0	8.6	48.1	37.7	50.7	323.8
Rural	43.2	19.2	19.3	7.9	9.8	141.2
Area outside S.M.A.'s	10.3	7.2	9.3	9.0	15.0	62.0
Urban	27.5	13.2	27.6	30.6	41.5	240.4
Rural	1.6	4.4	2.4	2.6	8.9	21.3
Class I: (52 areas)						
Principal standard metropolitan areas	18.6	7.0	26.3	23.7	31.3	160.3
Central cities	9.6	4.1	20.4	23.9	33.1	126.4
Rings	33.6	12.2	38.6	23.3	27.8	227.4
Urban	26.4	8.6	49.7	37.3	49.7	322.2
Rural	46.1	19.1	21.5	6.6	8.8	145.1
Area outside S.M.A.'s	11.7	7.4	10.2	10.3	16.3	69.5
Urban	27.9	12.4	27.8	33.0	45.0	254.4
Rural	2.4	4.7	2.6	2.8	9.1	23.3

Table 2.—Percentage of United States total population in standard metropolitan areas and in nonmetropolitan urban and rural areas, by decades: 1900-1950

Area and class of standard metropolitan area	Percent distribution					
	1950	1940	1930	1920	1910	1900
U.S. Total	100.0	100.0	100.0	100.0	100.0	100.0
Class VI-A: (162 areas)						
Standard metropolitan areas	56.8	53.3	52.7	48.2	44.2	40.5
Central cities	32.8	33.0	33.5	31.5	28.3	25.1
Rings	24.0	20.4	19.2	16.7	15.9	15.4
Urban	12.0	10.7	10.5	8.2	6.8	5.5
Rural	12.0	9.7	8.7	8.5	9.0	10.0
Area outside S.M.A.'s	43.2	46.7	47.3	51.8	55.8	59.5
Urban	14.2	12.9	12.1	11.6	10.5	9.1
Rural	29.0	33.8	35.1	40.2	45.3	50.3
Class VI: (147 areas)						
Principal standard metropolitan areas	56.0	52.6	52.0	47.5	43.6	40.0
Central cities	32.3	32.5	33.1	31.0	28.0	24.8
Rings	23.8	20.2	19.0	16.5	15.6	15.1
Urban	12.0	10.7	10.5	8.2	6.8	5.4
Rural	11.7	9.6	8.5	8.3	8.8	9.7
Area outside S.M.A.'s	44.0	47.4	48.0	52.5	56.4	60.0
Urban	14.7	13.4	12.6	12.0	10.9	9.4
Rural	29.3	34.0	35.3	40.5	45.5	50.6
Class V: (125 areas)						
Principal standard metropolitan areas	54.1	51.1	50.6	46.2	42.3	38.7
Central cities	31.2	31.6	32.2	30.2	27.3	24.3
Rings	22.9	19.5	18.3	16.9	15.0	14.0
Urban	11.8	10.5	10.3	8.1	6.7	5.4
Rural	11.1	8.9	8.0	7.8	8.3	9.1
Area outside S.M.A.'s	45.9	48.9	49.4	53.8	57.7	61.3
Urban	16.0	14.4	13.6	12.8	11.6	10.0
Rural	29.9	34.5	35.8	41.0	46.1	51.2
Class IV: (115 areas)						
Principal standard metropolitan areas	53.0	50.1	49.8	45.5	41.7	38.1
Central cities	30.6	31.1	31.8	30.0	27.1	24.0
Rings	22.4	19.0	18.0	15.5	14.6	14.0
Urban	11.8	10.5	10.3	8.1	6.7	5.4
Rural	10.6	8.5	7.6	7.5	7.9	8.7
Area outside S.M.A.'s	47.0	49.9	50.2	54.5	58.3	61.9
Urban	16.6	14.9	14.0	13.2	11.9	10.3
Rural	30.4	34.9	36.2	41.3	46.4	51.6
Class III: (94 areas)						
Principal standard metropolitan areas	50.2	47.7	47.5	43.7	40.1	36.7
Central cities	29.1	29.7	30.4	28.4	26.2	23.4
Rings	21.1	18.0	17.1	14.8	13.9	13.3
Urban	11.5	10.3	10.2	8.0	6.6	5.3
Rural	9.6	7.7	6.9	6.8	7.2	7.9
Area outside S.M.A.'s	49.8	52.3	52.5	56.3	59.9	63.3
Urban	18.4	16.5	15.5	14.3	12.8	10.9
Rural	31.4	35.8	36.9	42.0	47.1	52.4
Class II: (71 areas)						
Principal standard metropolitan areas	46.3	44.3	44.3	40.8	37.5	34.3
Central cities	26.9	27.6	28.4	27.2	24.9	22.3
Rings	19.4	16.7	15.9	13.6	12.7	12.0
Urban	11.2	10.1	9.9	7.8	6.5	5.2
Rural	8.3	6.6	5.9	5.8	6.2	6.8
Area outside S.M.A.'s	53.7	55.7	55.7	59.2	62.5	65.7
Urban	21.0	18.8	17.8	16.2	14.3	12.2
Rural	32.7	36.9	37.9	43.0	48.2	53.5
Class I: (52 areas)						
Principal standard metropolitan areas	41.6	40.2	40.3	37.0	34.4	31.7
Central cities	24.1	25.2	25.9	25.0	23.2	21.1
Rings	17.6	15.0	14.4	12.0	11.2	10.6
Urban	10.5	9.5	9.4	7.3	6.1	4.9
Rural	7.0	5.5	5.0	4.7	5.1	5.7
Area outside S.M.A.'s	58.4	59.8	59.7	63.0	65.6	68.3
Urban	24.4	21.8	20.8	18.9	16.4	13.7
Rural	34.0	38.0	38.9	44.0	49.2	54.6

Table 3.- Percentage of United States total decennial increase in standard metropolitan areas and in nonmetropolitan urban and rural areas, by decades: 1900-1950

Area and class of standard metropolitan area	Percent of United States increase					
	1940-50	1930-40	1920-30	1910-20	1900-10	1900-50
U. S. Total	100.0	100.0	100.0	100.0	100.0	100.0
Class VI-A: (162 areas)						
Standard metropolitan areas	80.6	61.6	80.9	75.0	61.6	73.2
Central cities	31.6	24.8	46.4	52.5	43.7	40.6
Rings	49.0	36.8	34.5	22.6	17.9	32.7
Urban	21.5	13.2	24.5	17.6	13.2	18.7
Rural	27.4	23.5	9.9	5.0	4.7	14.0
Area outside S.M.A.'s	19.4	38.4	19.1	25.0	38.4	26.7
Urban	23.0	23.5	15.7	18.5	17.2	19.3
Rural	-3.7	15.0	3.4	6.5	21.2	7.4
Class VI: (147 areas)						
Principal standard metropolitan areas	79.3	60.8	79.9	73.9	61.0	72.3
Central cities	30.7	24.2	45.2	51.5	43.1	39.8
Rings	48.6	36.6	34.3	22.4	17.9	32.5
Urban	21.4	13.3	24.5	17.5	13.2	18.7
Rural	27.2	23.3	9.8	4.9	4.6	13.8
Area outside S.M.A.'s	20.7	39.2	20.1	26.1	39.0	27.7
Urban	24.1	24.0	16.6	19.5	17.7	20.1
Rural	-3.4	15.2	3.5	6.6	21.3	7.5
Class V: (125 areas)						
Principal standard metropolitan areas	75.2	57.7	77.6	72.2	59.7	69.8
Central cities	28.5	22.8	44.2	50.1	42.0	38.3
Rings	46.8	34.9	33.4	22.0	17.7	31.5
Urban	21.0	13.1	24.3	17.4	13.1	18.4
Rural	25.8	21.8	9.1	4.6	4.6	13.1
Area outside S.M.A.'s	24.8	42.2	22.4	27.8	40.3	30.2
Urban	26.8	25.6	18.2	21.0	19.0	22.0
Rural	-2.1	16.7	4.2	6.9	21.3	8.2
Class IV: (115 areas)						
Principal standard metropolitan areas	72.8	55.4	76.2	71.1	59.0	68.2
Central cities	27.1	21.6	43.3	49.4	41.5	37.3
Rings	45.6	33.8	32.9	21.7	17.5	30.9
Urban	20.7	12.8	24.2	17.3	13.0	18.3
Rural	25.0	20.9	8.7	4.4	4.4	12.6
Area outside S.M.A.'s	27.2	44.6	23.8	28.9	41.0	31.8
Urban	28.4	27.0	19.2	21.8	19.5	23.0
Rural	-1.2	17.6	4.6	7.1	21.5	8.7
Class III: (94 areas)						
Principal standard metropolitan areas	67.0	50.4	71.5	67.6	56.6	63.9
Central cities	24.5	19.8	40.0	46.8	39.8	34.9
Rings	42.5	30.6	31.5	20.8	16.7	29.1
Urban	19.6	12.2	23.7	17.1	12.9	17.8
Rural	22.8	18.4	7.8	3.7	3.8	11.3
Area outside S.M.A.'s	33.0	49.6	28.5	32.4	43.4	36.1
Urban	32.0	29.5	23.0	24.6	21.4	26.0
Rural	1.0	20.1	5.5	7.8	22.1	10.0
Class II: (71 areas)						
Principal standard metropolitan areas	60.2	44.8	65.8	62.5	53.1	58.5
Central cities	21.7	17.3	35.7	42.8	37.4	31.6
Rings	38.5	27.5	30.1	19.7	15.7	26.9
Urban	18.8	11.8	23.2	16.4	12.6	17.2
Rural	19.7	15.7	6.9	3.3	3.1	9.7
Area outside S.M.A.'s	39.8	55.2	34.2	37.5	46.9	41.5
Urban	35.8	32.4	27.8	29.3	24.1	29.9
Rural	4.1	22.8	6.4	8.2	22.8	11.6
Class I: (52 areas)						
Principal standard metropolitan areas	51.6	39.0	60.4	54.6	47.2	51.7
Central cities	16.6	14.8	31.6	37.1	33.2	27.1
Rings	35.0	24.2	28.8	17.5	14.1	24.6
Urban	17.4	11.1	22.5	15.3	11.7	16.2
Rural	17.6	13.1	6.3	2.3	2.4	8.4
Area outside S.M.A.'s	48.4	61.0	39.6	45.4	52.8	48.3
Urban	42.2	35.6	32.6	36.2	29.3	35.3
Rural	6.2	25.4	7.0	9.2	23.5	12.9

growth of the metropolitan population has not been due to the addition of new areas alone, but to the continuation of extraordinarily rapid rates of growth in already established S. M. A.'s as well.

Yet the cumulative effect of adding new S. M. A.'s at each census is also apparent. Between 1900 and 1950, a total of 95 new principal S. M. A.'s were created in addition to the original 52. The 147 principal S. M. A.'s of 1950 contained 56.0 percent of the total popu-

lation. The difference of 14.4 percent, remaining after the 41.7 percent residing in class I areas is subtracted, represents the increase in S. M. A. population resulting from adding new S. M. A.'s after 1900.

Although the long-established S. M. A.'s have continued to grow faster than the Nation, the newly established S. M. A.'s have shown a tendency to grow even more rapidly. This may be verified by observing that the rate of growth during most decades to the left of the stepped line is greater for class II than for class I, greater for class III than for class II, etc.⁴ Hence, the addition of new S. M. A.'s has facilitated the expansion of metropolitan population not only by transferring large clusters of population from the nonmetropolitan classification, but also by adding units of population which have unusually high growth rates for at least one or more decades after their classifications as S. M. A.'s.

The growth behavior of new S. M. A.'s added at each decade may be examined in detail by referring to table 4. This table presents data, 1900-50, for only those new S. M. A.'s which were added to already established S. M. A.'s to form a new class. The areas are grouped according to the decade in which they were added. Rates of growth for these groups should be compared with rates of growth for the areas to which they were added (table 1). For example, by comparing the growth behavior of class I areas (table 1) with the growth behavior of the 19 areas added in 1910 (table 4) it can be noted that whereas the class I areas grew by 160.3 percent, 1900-50, the 19 new S. M. A.'s grew by 264.0 percent, or 65 percent faster. Similar comparisons for other decades will show that: (a) the new S. M. A.'s have grown faster than the areas to which they were added, (b) this rapid growth has taken place both before and after being defined as S. M. A.'s, (c) this rapid growth in new S. M. A.'s has tended to persist for several decades after entering a class, and (d) growth of newer S. M. A.'s has been particularly marked during the past two decades.

⁴ High growth rates for decades to the right of the diagonal line would be expected of new S. M. A.'s, for it is frequently by virtue of extraordinary rapid growth that they enter the metropolitan class.

Table 4. - Percent increase in population of standard metropolitan areas which first qualify as standard metropolitan areas at each census: 1910-1950

Census at which added and type of area	Percent increase					
	1940-50	1930-40	1920-30	1910-20	1900-10	1900-50
1950 (15 areas)						
Standard metropolitan areas	24.4	6.9	20.6	24.4	17.8	135.2
Central cities	25.5	8.1	25.3	34.0	31.5	199.5
Rings	22.0	4.4	11.6	9.3	1.4	57.5
Urban	72.0	26.5	26.6	96.8	28.7	124.4
Rural	17.6	8.4	9.9	4.2	4.0	51.7
1950 (22 areas)						
Principal standard metropolitan areas	36.9	15.1	28.1	20.1	22.2	196.2
Central cities	36.7	11.8	31.2	30.9	44.6	279.2
Rings	37.2	19.5	24.2	8.6	5.0	132.3
Urban	56.7	16.4	35.9	11.9	38.7	284.9
Rural	33.1	20.2	21.9	8.0	0.4	111.6
1940 (10 areas)						
Principal standard metropolitan areas	39.7	21.3	33.4	24.5	22.4	244.4
Central cities	40.2	21.2	45.5	39.0	40.2	381.9
Rings	39.0	21.5	22.2	13.5	11.7	161.8
Urban	105.4	67.1	46.1	115.6	156.5	2672.5
Rural	32.4	18.3	20.8	10.5	9.8	129.5
1930 (21 areas)						
Principal standard metropolitan areas	34.3	16.3	40.7	33.3	36.2	299.1
Central cities	26.8	9.8	50.3	47.2	55.6	379.5
Rings	44.4	26.4	28.0	18.5	20.2	232.7
Urban	89.1	32.7	109.8	79.3	128.6	2057.8
Rural	35.7	25.2	19.5	14.5	16.6	170.8
1920 (23 areas)						
Principal standard metropolitan areas	29.5	12.7	32.8	31.1	32.3	235.9
Central cities	20.4	9.0	42.8	47.2	50.7	315.9
Rings	43.2	18.6	19.1	13.9	17.1	169.7
Urban	46.9	12.9	37.0	68.1	57.3	500.8
Rural	42.3	20.2	15.0	6.1	12.9	135.7
1910 (19 areas)						
Principal standard metropolitan areas	30.1	10.5	23.4	37.8	48.9	264.0
Central cities	29.3	7.2	29.9	50.7	75.9	377.2
Rings	31.3	16.0	14.0	22.5	25.8	167.5
Urban	37.4	8.8	24.0	44.3	69.0	352.4
Rural	28.3	19.8	9.4	14.5	14.9	121.1

On the basis of the information assembled, the total growth of the population of principal S. M. A.'s over the 50-year period may be subdivided into parts as follows: (a) population of S. M. A.'s newly created at each census, (b) growth of the original 52 S. M. A.'s of class I, and (c) growth of classes II through VI during the decades after their establishment as S. M. A.'s. The contribution made by each of the three sources may be summarized as follows:

Time span	Total increase	Growth of class I	Growth of other established classes	Population of newly added S. M. A.'s ¹
1940-50.....	17, 170, 137	9, 825, 388	4, 492, 211	2, 852, 538
1930-40.....	6, 121, 467	3, 469, 312	1, 457, 021	1, 195, 134
1920-30.....	14, 946, 645	10, 304, 998	1, 897, 879	2, 743, 768
1910-20.....	11, 541, 589	7, 497, 727	1, 085, 762	2, 958, 100
1900-10.....	10, 412, 035	7, 543, 119	-----	2, 868, 916
1900-50.....	60, 191, 873	38, 640, 544	8, 932, 873	12, 618, 456

Percentage distribution

Time span	Total increase	Growth of class I	Growth of other established classes	Population of newly added S. M. A.'s ¹
1940-50.....	100.0	57.2	26.2	16.6
1930-40.....	100.0	56.7	23.8	19.5
1920-30.....	100.0	68.9	12.7	18.4
1910-20.....	100.0	65.0	9.4	25.6
1900-10.....	100.0	72.4	-----	27.6
1900-50.....	100.0	64.2	14.8	21.0

¹ Assigned to the decade during which growth into S. M. A. size occurred.

It is evident that in each decade since 1910, the increment to the total population made by adding new S. M. A.'s has been an important source of growth. Yet even more metropolitan growth has come from the greater than average rates of increase of previously established metropolitan areas. In every decade since 1900, the largest single source of metropolitan increase was the growth of the original 52 S. M. A.'s of class I. In the last half century, almost two-thirds of the metropolitan growth has come from this source.

Proportion of national increase claimed by S. M. A.'s

The intensity of the trend toward concentration of population in metropolitan areas may be more fully appreciated by comparing the percentage of the decennial increase in population going to S. M. A.'s (table 3) with the percentage of the national population in S. M. A.'s of the same class at the beginning of the decade (table 2). For example, the 147 S. M. A.'s of class VI, which contained 52.6 percent of the Nation's population in 1940, captured 79.3 percent of the Nation's increase 1940-50. The area outside these S. M. A.'s which contained 47.4 percent of the Nation's population in 1940, received only 20.7 percent of the Nation's increase, 1940-50. Similar comparisons for each class at each decade show large disproportionate gains of this type in favor of S. M. A.'s. When made for the half-century, 1900-50, these comparisons reveal the full extent to which the national increase has flowed into the building up of the metropolitan population. Although the area constituted as principal S. M. A.'s in 1950 contained only 40.0 percent of the population in 1900, during the last 50 years they have received 72.3 percent of the Nation's increase in population.

Growth in S. M. A.'s compared with growth in metropolitan districts

Thompson has extended back to 1900 a constant definition for the 44 metropolitan districts with central cities of 100,000 or more in 1910.⁵

⁵ Warren S. Thompson, *op cit.*, pp. 5-6.

As is shown by the following comparison between growth rates of these 44 original metropolitan districts and the corresponding S. M. A.'s, the two sets of metropolitan data show essentially the same thing: greater than average rates of growth during each decade 1900-30, with growth rates slightly below average from 1930 to 1940. Yet the two definitions do not yield identical results.

Decade	United States	44 metropolitan districts	Equivalent S. M. A.'s	Difference between metropolitan districts and S. M. A.'s
1900-10.....	21.0	34.6	32.4	-2.2
1910-20.....	14.9	25.3	24.0	-1.3
1920-30.....	16.1	28.0	27.2	-.8
1930-40.....	7.2	6.9	7.1	.2

The fairly large disparity for the earlier decades is undoubtedly due to the fact that the inner parts of the S. M. A. rings, immediately surrounding the central city, were growing rapidly, whereas the outlying parts were growing less rapidly, were almost stationary, or were losing population. The inner parts would have been in the metropolitan district, but the outer parts would not. Thus, when applied to the 1900-30 period, the S. M. A. definition probably embraces more territory than the area of rapid metropolitan growth, and for this reason tends to understate the true rate of growth in the actual metropolitan ring. As the above comparison shows, *the extent of this understatement has decreased in recent decades and appears to have even disappeared as metropolitan growth has tended to flow beyond the metropolitan district boundaries.* That this is true of metropolitan areas generally, and not merely of the original 44 metropolitan districts, may be verified by making the same comparison between the 97 metropolitan districts of 1930 and the equivalent S. M. A.'s:

Decade	United States	97 metropolitan districts	Equivalent S. M. A.'s	Difference between metropolitan districts and S. M. A.'s
1920-30.....	16.1	28.3	27.2	-1.1
1930-40.....	7.2	7.7	7.9	.2

These statistics are for groups of areas, however, and do not necessarily imply that similar results would be obtained for all individual areas. However, they do imply that as suburbanization has become more extensive in recent years the average differences in result between using metropolitan districts and S. M. A.'s have become negligible.

To discover how great the variation would be for individual areas, the 1930-40 and 1940-50 rates of growth for the individual 140 metropolitan districts of 1940 were plotted against the equivalent rates for S. M. A.'s for the cases in which equivalence could be established (same central cities). The results are shown in figure 4. In this chart, if the two sets of rates for a decade had been identical, all points would have fallen on the diagonal line of equal growth rates. Since the central cities are almost identical for both the metropolitan districts and the S. M. A.'s, the deviation of the points away from the diagonal line are due almost entirely to differences in rates of growth between the parts of metropolitan districts lying outside central cities and the parts of S. M. A.'s lying outside central cities. For a majority of the slower-growing areas the S. M. A. rates are larger than the metropolitan district rates, and the points fall slightly *below* the diagonal. This indicates that the metropolitan district is no longer enclosing the entire area of rapid growth for these areas. Most of these areas consisted of the older and larger metropolitan centers. For the faster growing areas, the S. M. A. rates are smaller than the metropolitan district rates, and the points fall above the diagonal. The faster the rate of growth, the greater this deviation tends to be. These areas were, for the most part, the newer and smaller metropolitan areas. A least squares regression line has been drawn through the points of figure 4. By measuring the vertical or horizontal distance between the least squares line and the diagonal line of equal growth rates it is possible to estimate the average amount of difference in rate of growth shown by the two areas, for each rate of growth. For the majority of areas the difference is very small for both decades.

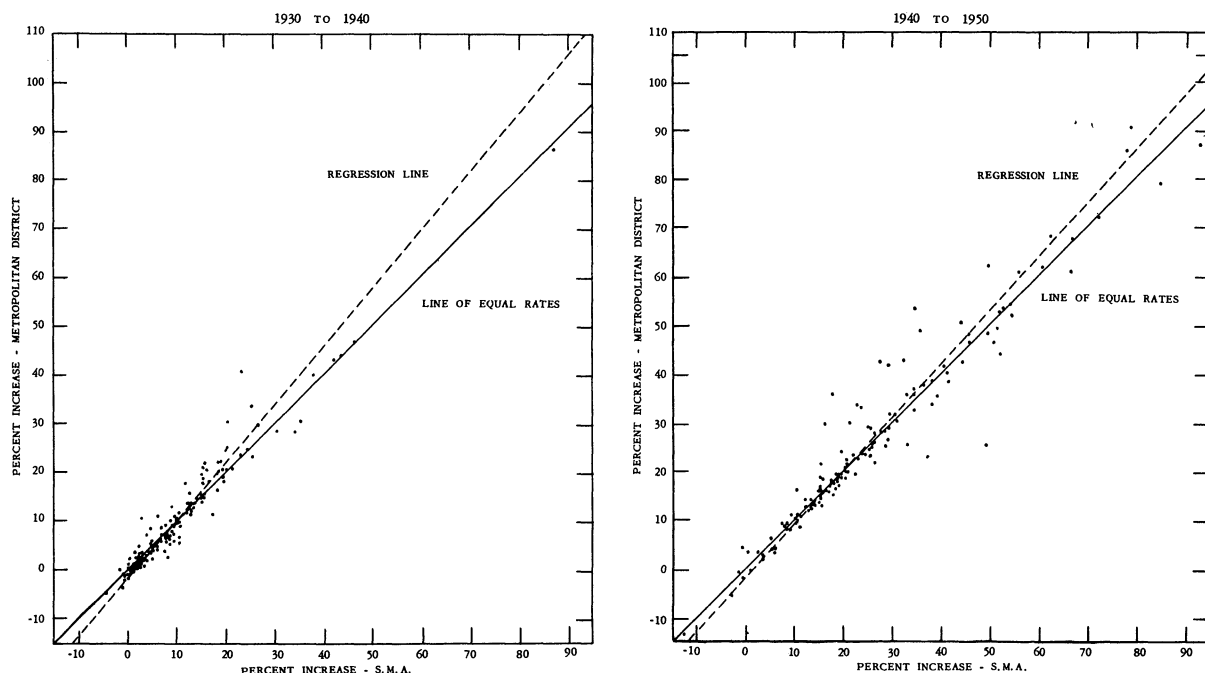


FIGURE 4.—Growth rates of metropolitan districts plotted against growth rates of standard metropolitan areas, 1930 to 1940, and 1940 to 1950.

Hence, although the metropolitan district may have been a superior unit for delimiting the area of metropolitan aggregation as of 1900 or even 1920, no such unilateral assertion can be made for 1950 and for the future. It is possibly true that the metropolitan district would still be a preferable unit for use with the smallest central cities, but aside from this, the S. M. A. unit is either distinctly preferable or shows essentially the same result. If recent tendencies for metropolitan growth to spread more and more diffusively over a broader area characterize smaller S. M. A.'s as well as larger areas, the superiority of the metropolitan district unit in this respect may disappear altogether; in fact, it may have disappeared already.

The validity of the S. M. A. unit for measuring metropolitan growth may be established in another way—by showing that 1940-50 rates of growth *at the periphery* of S. M. A.'s are greater than the S. M. A. rates. This may be demonstrated by computing rates of growth, 1940-50, for the tier of townships which lies at the outer boundaries of S. M. A.'s and of comparing them with the rates of growth of the

S. M. A. as a whole. Because of the large amount of data assembly required for this demonstration, only every tenth S. M. A. of class VI has been given this treatment. The results are as follows:

S. M. A.	Rate of growth, 1940-50				
	Total	Central city	Ring		
			Total	Outer border ¹	Inner part
Akron, Ohio.....	20.8	12.2	43.1	47.4	42.3
Baltimore, Md.....	23.4	10.5	72.9	41.5	80.5
Cedar Rapids, Iowa.....	17.0	16.4	18.3	10.1	26.6
Columbus, Ohio.....	29.5	22.8	54.3	35.1	60.8
El Paso, Tex.....	48.8	34.8	88.2	84.9	90.9
Greensboro-High Point, N. C.....	24.1	16.9	36.7	28.0	53.7
Jacksonville, Fla.....	44.7	18.2	168.4	(?)	(?)
Lorain-Elyria, Ohio.....	31.8	17.7	54.5	53.5	56.2
Minneapolis-St. Paul, Minn.....	18.7	6.8	76.2	33.2	85.0
Orlando, Fla.....	64.0	42.5	87.7	(?)	(?)
Raleigh, N. C.....	24.6	40.0	13.0	12.6	13.7
San Bernardino, Calif.....	74.8	44.5	86.1	78.5	98.3
Spokane, Wash.....	34.6	32.6	40.3	-7.6	53.8
Toledo, Ohio.....	14.9	7.5	48.3	33.5	51.7
Wilkes-Barre-Hazleton, Pa. ³	-11.2	-9.6	-11.8	-6.5	-12.5
Total.....	21.8	12.9	43.0	38.7	44.7

¹ Townships contained in the metropolitan districts in 1940 are excluded.

² No comparable figures for 1940-50.

³ Included with Scranton metropolitan district in 1940.

⁴ Not divisible into an inner and outer ring.

In 10 of the 13 areas for which inner and outer rings could be established, the rate of growth in the outer ring was above the S. M. A. average rate, although, in most cases not as high at the rate for the inner ring. The exceptional cases are smaller or newer S. M. A.'s. Hence, the rapid growth, between 1940 and 1950, of territory outside the metropolitan district but within the S. M. A. must be regarded as a typical rather than an exceptional aspect of metropolitan growth.

Growth in central cities and rings

The preceding analysis has examined the growth of the S. M. A.'s as units, without reference to the pattern of distribution or growth within the areas. Considerable attention has been given in recent years to the growth of the various parts of S. M. A.'s and particularly to the comparative rates of growth of central cities and that part of the metropolitan area lying outside central cities.⁶ (In this report the metropolitan "environs," or the part of the S. M. A. lying outside the central city, is called the "metropolitan ring," or the "ring of the S. M. A.") Tables 1, 2, and 3 provide data with which to trace the pattern of central city and ring growth for each class over the last 50 years. Table 4 provides similar data for new S. M. A.'s added at each census.

Since 1900, a remarkable reversal in the pattern of growth within S. M. A.'s has taken place. In 1900-10, the central cities had higher growth rates than the metropolitan rings, but in 1940-1950 the rings were growing at a much more rapid rate than central cities. This change appears to have taken place about 1920 (see figure 5).⁷ The advent at that time of the

use of automobiles for commuting marks the beginning of the more extended pattern of settlement around metropolitan centers which has now become an outstanding characteristic of population distribution. About 11 percent of the total population of principal S. M. A.'s was living in the metropolitan ring outside central cities in 1900. By 1950, this proportion had risen to 24 percent. *For the past twenty years, both in the 1930-40 decade and in the 1940-50 decade, central cities have grown less rapidly than the population of the Nation, and only about one-third as rapidly as their own rings. This can only mean that such growth as they have made was largely self-generated by an excess of births over deaths (natural increase). Many cities, if not most, have suffered rather large net out-migrations both during the depression 1930's and the prosperous postwar 1940's.* Thus, the decade just completed continued the pattern of growth within S. M. A.'s which became predominant in the 1930's.

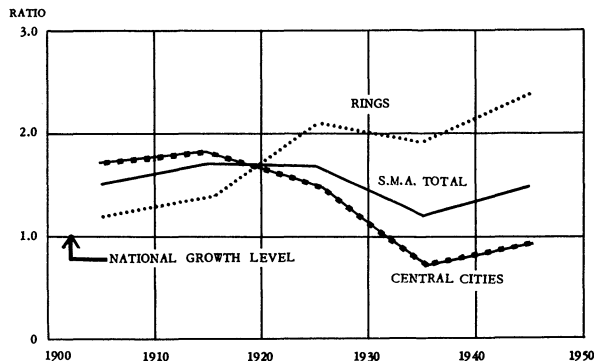


FIGURE 5.—Ratio to the national growth rate of standard metropolitan area growth rate, central cities and rings, by decades, 1900 to 1950 (class VI standard metropolitan areas).

⁶ Growth by distance from the central city will be treated in detail by Dr. A. H. Hawley in *Population Redistribution Within Metropolitan Areas of the United States: 1900-1950*, another monograph in this series.

⁷ Thompson, *ibid.*, finds in the 44 metropolitan districts of 1910 that central cities were growing more slowly than the part of the metropolitan districts outside central cities both during the 1900-10 and 1910-20 decades, although the difference did not become large until the 1920-30 decade. This again is evidence that the S. M. A. would have been a relatively poor unit of metropolitan area prior to the recent era of extended metropolitan growth. For tracing the early growth of metropolitan areas, Thompson's metropolitan district data, rather than the present S. M. A. data, are the more realistic.

It could be maintained, with some superficial plausibility, that no fundamental alteration took place in the pattern of growth within S. M. A.'s, but that central cities merely overflowed their boundaries into the surrounding territory. This view overlooks the fact that central cities had been overflowing their boundaries for many decades prior to 1920. Since growth was dense and compact, and since outly-

ing communities had little social or economic autonomy, annexation to the central city of newly settled areas was fairly prompt. The fact that separate incorporation of outlying areas and a decline in the rate of annexation began almost simultaneously in S. M. A.'s throughout the entire Nation, irrespective of their stage of growth, and that the compact pattern of growth gave way to a more extended type of suburban settlement, supports the view that automotive transportation altered radically the course of metropolitan growth. It permitted the establishment of many more suburban communities consisting primarily of single-family residences. Although the practice of razing obsolete structures in central cities to make space for higher density apartment buildings has continued, it has not succeeded in maintaining growth at the center nor lessened the impetus for outward diffusion. The area occupied by urban metropolitan population has continued to grow, but over a much greater radius than previously.

This tendency for rings to outstrip central cities in rate of growth began in the older established S. M. A.'s and then a decade or so later became the pattern for newer S. M. A.'s. This may be verified by comparing the rates of growth of central cities and rings of new S. M. A.'s added at each census (table 4) with the corresponding rates for the classes to which they were added (table 1). Whereas, in the already established S. M. A.'s of class I, the population of the rings was growing at a more rapid rate than that of the central cities as early as the 1920-30 decade (table 1), it was not until the 1930-40 decade that rings in any of the groups of newer S. M. A.'s grew faster than their central cities (table 4). *It is noteworthy that this change took place in all of the newer groups of S. M. A.'s in the same decade, and hence was not related to the date at which they attained S. M. A. status.* Broader metropolitan growth appears to be associated with technological and social developments which have occurred during recent decades and not to an area's attaining any particular stage of growth.

Growth of urban and rural areas within metropolitan rings

Within the rings of S. M. A.'s there has been another reversal of the pattern of growth, similar to that which occurred between central cities and rings. Before 1930, urban places in the rings were growing much more rapidly than the rural areas. This growth arose from two sources: the growth of already established cities, and the growth of smaller incorporated places to a population of 2,500 inhabitants, which caused them to be transferred from the rural to the urban classification.⁸ Prior to the depression, both of these processes were operating at a rapid pace. Because they lost population steadily through the reclassification of incorporated places as urban, the rural areas of rings grew less rapidly than either central cities or satellite urban places. During the 1930-40 decade, however, this situation was completely reversed, and this reversal has continued through the 1940-50 decade. During the last 20 years, the growth of incorporated places into the urban class has slackened noticeably, while the suburbanization of unincorporated territory adjacent to metropolitan centers has been accelerated tremendously. Thus, the great surge of population into the periphery of S. M. A.'s during recent decades has not gone heavily to outlying urban centers, as in 1900-30. Instead, it has gone primarily to the unincorporated and less densely settled parts of the ring. The 1940-50 decade merely continued this tendency which became the predominant pattern during the depression years.

⁸ For this study, the urban and rural populations have been summarized exactly as reported at each census, using the 1940 definitions. Hence, the increase of urban population by the passing of incorporated places from the rural to the urban classification is combined with the increase in population of already existing cities. The rates shown are rate of urban growth from both sources combined. If one desires to analyze growth rates of a fixed sample of urban areas in order to measure the attractive power of existing cities, these rates are not useful. For this overall study of urban growth in rings, however, these are the proper rates to use. It is inconsequential, in the aggregate, whether an increase in the urban population comes as an urbanization of a place previously rural or as an accumulation of added persons in already established urban places. In fact, holding constant the area would tend to hide the true extent of urbanization in the rings.

For much more detailed study of growth patterns within metropolitan areas, see the monograph by Dr. Hawley in this series of reports, *op. cit.* This study will analyze the growth of ring cities, holding area constant.

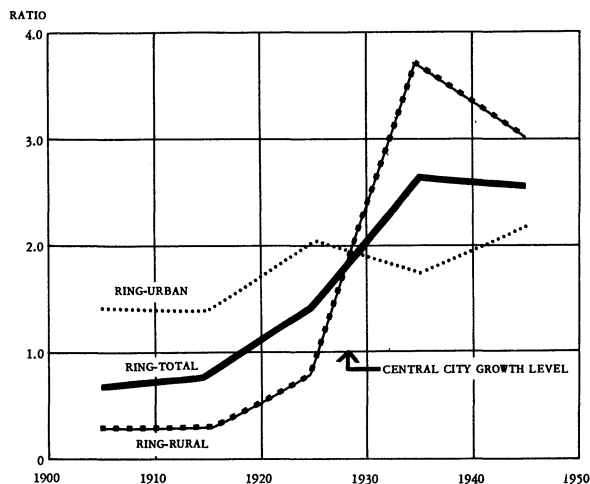


FIGURE 6.—Ratio to the central city growth rates of growth rates of metropolitan rings, urban and rural, 1900 to 1950 (class VI standard metropolitan areas).

The above generalization, based on tables 1, 2, and 3, and figure 6, makes use of old definitions of the urban population in order to gain comparability for the decades from 1900 to 1950. Much of the population classified as rural under the old definition is classified as urban under the new urbanized area definition. (See ch. III.) *It is precisely this upsurge since 1930 of growth and urban-like settlement of unincorporated areas about larger cities which has made it necessary to abandon the old definition of urban population, based on incorporated places, and to adopt a new definition based on density of settlement.* Statistics for the urban and rural population (old definitions) are useful for documenting this reversal of the former pattern of growth in metropolitan rings and for demonstrating the need for a revised urban-rural classification within S. M. A.'s. They do not, however, measure the full extent of urban growth in S. M. A.'s.

The foregoing emphasis upon the growth of rural areas in the rings should not be allowed to obscure the fact that between 1940 and 1950 urban population in the ring grew fairly rapidly, even if less rapidly than the rural population. Undoubtedly, a large share of this urban growth was due to the emergence of new places into the urban classification. Although between 1930 and 1940 urban population of rings grew much less rapidly than the rural

population, the difference was not as great as it has been during the past decade. Thus, in the postwar years the urbanization of the ring has proceeded along three fronts—the building up of unincorporated territory into urban-like developments, the building up of small incorporated rural places until they become urban, and the continued growth of older urban places.

During the last decade, this spreading of population growth into rural areas of the rings has been much more pronounced in the older S. M. A.'s than in the ones more recently established, although during the 1930's it was about equally characteristic of all classes of S. M. A.'s. This differential tendency toward growth in rural areas may be measured by noting the ratio of the rural to the urban rate of growth (old definitions) in each class of S. M. A.'s for the two decades:

Class of S. M. A.	Ratio of rural to urban rates of growth	
	1940-50	1930-40
I.....	1. 75	2. 22
II.....	1. 60	2. 23
III.....	1. 56	2. 22
IV.....	1. 48	2. 21
V.....	1. 45	2. 18
VI.....	1. 42	2. 15

In spite of this, newer S. M. A.'s are tending to build up urban places (old definitions) in their rings at a faster rate than they are settling rural territory. This may be seen directly by comparing the rates of growth in the urban and rural parts of rings of newer S. M. A.'s (table 4) with the already established S. M. A.'s (class I, table 1). Without exception, each group of newer S. M. A.'s had a higher rate of urban than rural growth in the ring, 1940-50. This differential in growth is greater in the S. M. A.'s established since 1930 than in those established in 1910 and 1920. The change may be due to the fact that smaller and younger S. M. A.'s have immature suburbs with few urban places.

As a consequence of their rapid growth over the past two decades, the rural portion of

S. M. A. rings contained, in 1950, about the same total population as the cities of the rings. More than one-fourth (27.2 percent) of the total national increase of the 1940-50 decade went into the growth of rural rings, in spite of the fact that they contained only 9.6 percent of the Nation's population in 1940.

Size as a factor in metropolitan growth

S. M. A.'s vary greatly in size. The largest S. M. A., the New York-Northeastern New Jersey area, contained 12,912,000 inhabitants in 1950; Laredo, Tex., the smallest S. M. A., contained only 56,000 inhabitants. The largest area was more than 230 times the size of the smallest.

A majority of the S. M. A.'s are of small size. In 1950, one-half of them had a population of less than 240,000, and three-fourths had a population of less than 440,000.

In spite of the fact that most S. M. A.'s are comparatively small, a large proportion of the total metropolitan population is contained in the few largest areas. The five areas with 3 million or more inhabitants contain more than one-third of the total S. M. A. population. About one-half of the total metropolitan population is contained in the 11 largest S. M. A.'s. Together, the 84 smallest S. M. A.'s (each with less than 150,000) contain only one-seventh of the total metropolitan population. It is evident that statistics for trends and composition of all S. M. A.'s, taken as a total, will reflect the trends and composition of the few largest areas.

In order to determine how the growth trends outlined above differ with varying size of S. M. A.'s, data for S. M. A.'s by size groups are presented in tables 5, 6, and 7. The general finding from these tables is that *with the exception of a general tendency for S. M. A.'s of 1 million inhabitants or more to grow at a slightly less rapid rate than S. M. A.'s smaller than this, there has been no pronounced or consistent trend for rates of total metropolitan growth to vary with size, either in the 1940-50 decade or in any earlier decade.*

The proper technique for tracing the growth of cities, by size, over several decades is not

to classify cities by their present size and trace their growth backward, but to classify them by size at some early date and trace their growth forward. The first approach may show artificially rapid rates of growth for the largest cities, for it is by growing rapidly that some cities would fall into the larger size groups at the terminal date. Therefore, the growth of S. M. A.'s by size can best be studied by tracing forward the growth of class I areas (S. M. A.'s of 1900). During the half-century of growth of this group, the slowest growing areas were those which contained 250,000 to 349,999 inhabitants in 1900. Two of the fastest growing size groups were those immediately above and below the slowest group. Thus, size alone appeared to produce no uniform effect on growth. This negative result was not caused by a reversal of pattern within the half-century, for the situation described is present for most of the individual decades. There has been a tendency for the largest S. M. A.'s, those with 1 million or more inhabitants, to grow less rapidly than most smaller size groups. This tendency is not new; it has been present since 1900.

Yet, on the basis of this evidence, it would be incorrect to assert that all size groups of cities grow at about the same rate, for there are quite large differences between the growth rates of the various size categories. But because those rates exhibit no readily interpretable patterns with respect to size—either ascending, descending, or some other systematic sequence which would indicate relationship, it must be assumed that the differences are the result of other factors with which size is also associated.

Regional differences in growth is one hypothesis which presents itself as a possible explanation of the variation in growth rates of the different size groups. It is a fact that in the Northeast, S. M. A.'s tend to be large, whereas in the South they tend to be smaller. If growth rates in the Northeast differ from those in the South, then this regional difference can also be reflected as a size of S. M. A. difference. The regional factor may be controlled by "standardizing" the rates for regional variation in size of

S. M. A.⁹ This was done using the size distribution of S. M. A.'s in the entire United States as a standard population. The results are as follows:

Size of S. M. A.	Rate of growth, 1940-50	
	Unstandardized	Standardized
Less than 250,000-----	27.5	23.7
250,000-499,999-----	22.3	24.2
500,000-999,999-----	25.3	22.3
1,000,000 and over-----	18.1	20.6

Standardization has the effect of removing some of the variation in the growth rates and of bringing them all nearer to a single value. When the regional aspect of growth is controlled, cities of 1 million are found to be growing only about 85 percent as rapidly as the remainder of S. M. A.'s. Within this remainder there probably is no pattern of growth by size, for the fastest growing of the groups

under 1 million was the slowest growing before standardization.

As a consequence of this lack of any systematic pattern of growth by size, there has been no long-run tendency for the larger or the smaller cities of any class to alter greatly its proportion of the total. *However, because the largest S. M. A.'s have become even larger, and more and more S. M. A.'s have grown into the larger classes, a slightly larger proportion of the total U. S. population and of the total S. M. A. population is now living in the larger places than previously.* For example, in 1900, when there were only 5 places of 1 million or more, 48.9 percent of the total S. M. A. population lived in these large areas. In 1950, when there were 14 such areas, 52.5 percent of the population of all S. M. A.'s was living in them. Conversely, there has been a tendency for the population of smaller S. M. A.'s to constitute a smaller proportion of the total. This phenomenon may be viewed in another way by noting, in table 7, that the five class-I places of 1 million or more gained 23.5 percent of the national decennial population increase 1900-10, but that the 14 places this large in 1950 gained 37.4 percent of the total decennial increase, 1940-50.

⁹ The use of this technique for controlling the effect of one area classification while studying rates for another area classification was suggested by Dudley Duncan in "Regional Comparisons Standardized for Urbanization," *Social Forces*, vol. 26, No. 4, May 1948. Readers who are unfamiliar with the technique of standardizing rates are referred to the Bureau of the Census, *Handbook of Statistical Methods for Demographers*, by A. J. Jaffe, U. S. Government Printing Office, 1951, ch. 3.

Table 5.—Percent increase in population of standard metropolitan areas, by decades, by size: 1900-1950

Size in 1950, 1940, 1900 and intercensal period	Size of standard metropolitan area (in thousands)							
	Total	5,000 & over	1,000- 2,999	500- 999	350- 499	250- 349	150- 249	100- 149
Size in 1950: Class VI-A Number of S.M.A.'s	162	5	9	23	15	26	37	32
Percent increase								
1940-50	21.8	17.9	20.5	26.2	23.4	25.5	26.5	23.6
1930-40	8.5	7.6	7.0	9.4	7.2	9.9	12.3	9.6
1920-30	27.1	36.1	19.2	25.8	20.3	24.4	24.2	23.9
1910-20	25.4	28.8	21.2	24.3	29.7	26.4	22.9	19.4
1900-10	32.0	37.0	27.3	34.2	30.5	37.6	25.6	22.0
1900-50	177.8	205.3	137.0	189.8	169.4	198.5	172.4	144.5
Size in 1940: Class V Number of S.M.A.'s	125	5	8	13	18	18	34	31
Percent increase								
1940-50	21.3	12.2	25.7	25.3	17.9	28.7	28.2	26.9
1930-40	8.3	5.4	8.5	11.8	6.1	10.6	11.3	10.9
1920-30	27.2	26.8	36.0	23.6	20.0	21.9	29.1	24.1
1910-20	25.5	22.0	32.6	20.8	23.3	32.5	28.0	23.0
1900-10	32.5	33.6	33.9	32.2	29.9	32.9	36.6	22.8
1900-50	178.0	144.4	229.3	176.4	140.6	205.8	221.9	163.8
Size in 1900: Class I Number of S.M.A.'s	52	1	4	5	5	9	19	9
Percent increase								
1940-50	18.6	10.7	11.7	26.7	25.2	12.9	29.8	23.1
1930-40	7.0	7.4	2.5	6.8	11.2	4.0	11.8	8.4
1920-30	26.3	27.9	20.7	22.3	35.1	17.6	38.6	15.1
1910-20	23.7	20.5	21.0	18.2	46.5	16.0	30.6	20.2
1900-10	31.3	39.6	26.1	22.9	34.9	23.3	39.1	36.8
1900-50	160.3	165.7	111.1	140.2	274.1	97.6	265.0	162.7

Table 6.-Percentage of standard metropolitan area total population in each size group of standard metropolitan areas, by decades: 1900-1950

Size in 1950, 1940, 1900 and census year	Size of standard metropolitan area (in thousands)								
	Total	3,000 & over	1,000- 2,999	500- 999	350- 499	250- 349	150- 249	100- 149	Under 100
Size in 1950: Class VI-A Number of S.M.A.'s	162	5	9	23	15	26	37	32	15
Population 1950	100.0	34.4	18.1	16.9	7.4	8.8	8.3	4.6	1.5
1940	100.0	35.6	18.3	16.3	7.3	8.5	8.0	4.5	1.5
1930	100.0	35.8	18.5	16.2	7.4	8.4	7.7	4.5	1.5
1920	100.0	33.4	19.8	16.4	7.8	8.6	7.9	4.6	1.6
1910	100.0	32.5	20.5	16.5	7.5	8.5	8.0	4.8	1.6
1900	100.0	31.3	21.2	16.2	7.6	8.2	8.4	5.2	1.8
Size in 1940: Class V Number of S.M.A.'s	126	3	8	13	18	18	34	31	...
Population 1950	100.0	27.1	23.6	13.6	11.0	8.3	10.4	6.0	...
1940	100.0	29.3	22.8	13.2	11.4	7.8	9.9	5.7	...
1930	100.0	30.1	22.7	12.8	11.6	7.6	9.6	5.6	...
1920	100.0	30.2	21.2	13.1	12.3	7.9	9.5	5.7	...
1910	100.0	31.1	20.1	13.7	12.5	7.5	9.3	5.8	...
1900	100.0	30.8	19.9	13.7	12.8	7.5	9.0	6.3	...
Size in 1900: Class I Number of S.M.A.'s	52	1	4	5	5	9	19	9	...
Population 1950	100.0	20.6	22.7	11.6	12.3	8.5	19.9	4.4	...
1940	100.0	22.0	24.1	10.8	11.7	8.9	18.2	4.3	...
1930	100.0	22.0	25.2	10.8	11.3	9.2	17.4	4.2	...
1920	100.0	21.7	26.3	11.2	10.5	9.9	15.9	4.6	...
1910	100.0	22.3	26.9	11.7	8.8	10.5	15.0	4.7	...
1900	100.0	20.9	28.0	12.5	8.6	11.2	14.2	4.5	...

Table 7. - Percentage of United States total decennial increase in each size group of standard metropolitan area, by decades: 1900-1950

Size and decade	Size of standard metropolitan area (in thousands)								
	Total	3,000 & over	1,000- 2,999	500- 999	350- 499	250- 349	150- 249	100- 149	Under 100
Size in 1950: Class VI-A Number of S.M.A.'s	162	5	9	23	15	26	37	32	15
1940-50	80.6	23.6	15.8	15.6	6.3	8.0	7.8	5.9	1.3
1930-40	61.6	20.3	9.4	11.1	3.9	6.1	6.9	5.1	0.7
1920-30	80.9	35.0	11.3	12.6	4.7	6.3	5.7	5.5	1.0
1910-20	75.0	27.7	12.8	11.9	6.6	6.7	6.4	2.8	1.1
1900-10	61.6	22.4	11.2	10.7	4.5	6.9	4.1	2.2	0.6
1900-50	73.3	26.5	12.0	12.7	5.3	6.7	6.0	3.1	1.0
Size in 1940: Class V Number of S.M.A.'s	126	3	8	13	18	18	34	31	...
1940-50	75.3	12.6	20.6	11.8	7.2	7.9	9.8	5.4	...
1930-40	57.7	11.4	13.5	10.5	4.9	5.6	7.5	4.2	...
1920-30	77.6	23.1	21.8	8.9	7.0	5.0	7.9	5.9	...
1910-20	72.2	19.3	18.5	8.0	8.2	3.9	7.4	5.8	...
1900-10	59.7	19.0	12.4	8.1	7.0	4.5	6.1	2.6	...
1900-50	69.8	17.5	17.9	9.5	7.0	6.1	7.9	4.0	...
Size in 1900: Class I Number of S.M.A.'s	52	1	4	5	5	9	19	9	...
1940-50	51.6	6.6	7.8	8.0	8.2	3.2	15.1	2.7	...
1930-40	39.0	9.0	3.5	4.1	7.0	2.0	11.4	2.0	...
1920-30	60.4	13.9	12.5	5.7	8.6	4.0	14.0	1.6	...
1910-20	54.6	10.5	13.1	4.9	9.5	3.9	10.6	2.2	...
1900-10	47.2	12.5	11.0	4.3	4.5	3.9	6.4	2.5	...
1900-50	51.7	10.5	10.0	5.7	7.8	3.5	12.1	2.2	...

The following summary helps to emphasize the increased role of large S. M. A.'s in the national life since the turn of the century.

Item	Size of S. M. A.			
	1 million or more in—		500,000–999,999 in—	
	1940	1900	1940	1900
Number of persons (thousands)-----	34, 963	11, 803	8, 852	3, 019
Percent of total United States population-----	26. 6	15. 5	6. 7	4. 0
Percent of total United States national increase in decade-----	33. 2	23. 6	11. 8	8. 0

Thus, below the level of about 1 million inhabitants, the size of S. M. A.'s has not in the past been a very severe *limiting* factor in metropolitan growth. Such variations in rate of growth by size group as do exist can probably be explained in terms of regional, social, and economic differences which also have a size pattern. *Specifically, during the decade just finished which ushered in the atom bomb there is no evidence of a suspension of growth in the largest centers and a major transferal of growth to the smaller ones.* During the past decade, 3 more S. M. A.'s entered the 1 million class and 10 more entered the 500,000–999,999 class, thereby continuing the long-run trend for an increasing proportion of the Nation's population to live in the very large metropolitan areas.

Although some advocates of decentralization have hoped the threat of mass destruction by atomic weapons would frighten the populace into a course of action which other lines of argument had failed to produce, there is little evidence that further settlement around large cities has stopped or slowed down materially since 1940 as a consequence of the fact that such places are prime military targets. The only responses to this new problem of possible mass extinction which one might detect in metropolitan growth are two:

(a) A possible acceleration in the emergence of new medium size cities and smaller S. M. A.'s

could have occurred. Twenty-two new principal S. M. A.'s were created between 1940 and 1950. Although this appears to be a large number of new principal S. M. A.'s to add in one decade, it should be pointed out that 23 new areas of this type were added in 1920, and 21 in 1930. Hence, the number of new S. M. A.'s created as a result of 1940–50 growth is only the average of the pre-depression trend (accomplished with a considerably smaller total population) and does not signify any unusual reaction against continued growth of large cities. In addition, urban areas in nonmetropolitan territory outside such S. M. A.'s grew at the rate of 26.0 percent between 1940 and 1950 (table 1). This was at a faster rate than S. M. A.'s grew. Yet much of this growth resulted from the birth of new cities from previously rural incorporated places. Table 1 shows that a similar tendency has prevailed during each decade since 1900, except one. This tendency has been noted and studied in some detail for the 1920–30 period.¹⁰ There is little evidence of the creation of an unusually large number of small cities instead of continued expansion of larger cities. Hence, the increased number of S. M. A.'s and the rapid growth of urban population in nonmetropolitan areas cannot be interpreted as a breaking up of existing metropolitan centers and their dispersal over the regions as smaller centers. At best it could represent only a mild acceleration of an old trend.

(b) A possible acceleration in the outward movement to suburbs from central cities could have taken place. Data presented above have shown that high rates of metropolitan growth have spread out to the S. M. A. boundaries, and undoubtedly beyond in many cases. However, it was shown in the comparison between S. M. A.'s and metropolitan districts that this tendency had already begun in the 1930–40 decade. Its possible acceleration and extension in the 1940–50 decade could be interpreted as a response to an atomic threat, as a response to an increased demand for housing during a period of greater prosperity, following an already estab-

¹⁰ D. J. Bogue, *Metropolitan Decentralization*, op. cit.

lished pattern, or as a response to a combination of both factors. It would be difficult to attribute all of the 1940-50 peripheral growth to the desire to live at a greater distance from the central city in order to escape possible bombing.

In short, in spite of all that has been said and written about the vulnerability of the metropolitanized American economy to modern methods of aerial attack, there is little visible evidence of basic change in the historic patterns of population growth and distribution. If the age of atomic power is to revolutionize the patterns of metropolitan growth, either its effects

have not yet been clearly manifested or else we have not yet learned to recognize them.

Regional variations in metropolitan growth

S. M. A.'s located in some regions have grown more rapidly than the S. M. A.'s of other regions. *Thus, region of location is a factor in metropolitan growth. This is not a recent phenomenon, but one of long standing.* Table 8 presents data which indicate that regional variations in metropolitan growth not only have been large during the 1940-50 decade, but also have been large during the preceding decades.

Table 8. - Percent of increase and percentage of decennial regional increase in population of standard metropolitan areas, by classes, regions, and decades; 1900-1950

Class of standard metropolitan area and interdecennial period	Percent increase					Percentage of decennial regional increase in S.M.A.'s				
	Total U.S.	North-east	North Center	South	West	Total U.S.	North-east	North Center	South	West
Class VI-A										
1940-50	21.8	10.3	18.2	55.6	52.0	80.6	85.3	86.1	82.4	71.8
1930-40	8.6	4.6	5.3	18.2	18.0	61.6	82.6	67.0	51.6	80.0
1920-30	27.1	19.0	26.8	52.9	55.9	80.9	93.5	95.0	56.7	77.8
1910-20	25.4	18.6	31.2	28.5	40.2	75.0	96.9	86.8	48.5	59.6
1900-10	32.0	28.9	29.1	29.7	31.4	61.6	91.7	72.9	29.8	50.6
1900-50	177.8	109.8	171.7	254.6	601.8	73.3	91.2	84.3	55.0	66.1
Class VI										
1940-50	21.8	10.3	18.1	55.6	52.2	79.3	85.3	85.7	80.6	71.0
1930-40	8.5	4.6	5.3	18.4	18.2	60.8	82.5	64.7	51.0	58.7
1920-30	27.2	19.0	29.3	52.6	54.8	79.9	93.5	93.7	54.9	77.2
1910-20	25.3	18.6	31.6	27.9	40.9	73.9	96.9	85.1	46.5	59.0
1900-10	32.0	28.9	29.5	29.1	32.7	61.0	91.7	72.2	28.9	49.6
1900-50	177.8	109.8	174.0	251.4	616.6	72.3	91.2	82.7	55.5	65.3
Class V										
1940-50	21.3	10.3	18.1	54.8	51.2	75.2	85.0	80.2	75.1	67.5
1930-40	8.3	4.6	5.3	17.9	17.9	57.7	82.4	61.8	46.4	57.1
1920-30	27.1	19.1	29.9	52.1	54.3	77.6	93.2	91.3	50.6	74.6
1910-20	25.5	18.7	32.2	28.4	41.3	72.2	96.7	82.2	44.2	57.9
1900-10	32.3	29.0	29.9	29.7	34.2	59.7	91.5	69.2	27.4	48.7
1900-50	177.2	110.2	177.3	249.7	615.4	69.8	91.0	79.7	49.4	62.9
Class I										
1940-50	18.6	10.3	18.0	30.5	48.7	51.6	79.0	64.7	26.1	49.6
1930-40	7.0	4.6	5.1	16.7	17.1	39.0	76.7	48.9	17.8	42.6
1920-30	26.8	19.6	31.1	21.5	61.2	60.4	88.1	76.7	15.2	62.7
1910-20	25.7	18.7	31.0	18.7	42.9	54.6	89.2	64.8	14.1	44.3
1900-10	31.3	29.2	31.0	17.8	35.8	47.2	84.8	57.4	8.7	36.3
1900-50	160.3	111.7	179.1	158.9	644.8	51.7	84.8	64.9	16.7	48.2

Since 1910, S. M. A.'s in the Northeast and the North Center regions have been growing more slowly than the average for all S. M. A.'s. Those in the South and West have been growing at above-average rates. During this period, the S. M. A.'s of each region have developed by a pattern which is not exactly the same as that of any other region. A brief description of the metropolitan development of each region follows.

The S. M. A.'s of the Northeast region grew very rapidly in the 1900-1910 decade, but at each successive decade since then, their rates have been much below those of S. M. A.'s in other regions. In the 1940-50 decade, this 30-year

trend of extraordinarily low rates was continued. Whereas S. M. A.'s as a whole grew by 21.8 percent, those of the Northeast grew only by 10.3 percent. Since the Northeast is a highly metropolitanized region, a large share of its total regional increase goes into the continued growth of S. M. A.'s. In the 1940-50 decade, 85.3 percent of the Northeast's regional increase was located in S. M. A.'s.

S. M. A. growth in the North Center region has been near the national average rate. It was somewhat above average in 1910-20 and 1920-30, but below average in 1930-40 and 1940-50. In this region also a large proportion of the population resides in S. M. A.'s,

and a large proportion of the regional increase in population has gone into metropolitan growth.

In recent years, the South has undergone a very rapid metropolitan development. During the decades prior to 1930, the S. M. A.'s of the South grew at rates which were below average (1900–1910) and only slightly above average (1910–20 and 1920–30). Since 1930, they have grown at rates well above the average. A comparison of growth rates for the various classes of table 8 shows that this has not resulted merely from the rapid growth of a few new areas, but from a resurgence of growth in the older, already established S. M. A.'s as well. Although this phase of greater than average growth of southern metropolitan areas began between 1910 and 1920, and continued through the 1920–30 decade, it was greatly accelerated during the 1930's and remained at a high level during the 1940's. In the 1940–50 decade, the South increased its S. M. A. population at the comparatively rapid rate of 35.6 percent, or more than 50 percent faster than the average rate of metropolitan growth in the Nation. Even the oldest areas of the South, those of class I, grew by 30.5 percent. *These are the fastest rates of metropolitan growth which the South has enjoyed since 1900 or possibly much earlier. They are faster rates of growth than those which prevailed in the Northeast and the North Center during their period of rapid metropolitan expansion.* They are second only to the West, which for the past half century has increased its metropolitan population much faster than has any other region. The rapid rise of metropolitan population in the South may also be traced in more detail by noting the proportion of its regional increase which occurred in S. M. A.'s. During 1900–1910, only 8.7 percent of the South's total population increase went to its S. M. A.'s as then delimited. This proportion has risen steadily during each subsequent decade, until in the 1940–50 period the equivalent of 80.6 percent of the South's total increase occurred in principal S. M. A.'s.

Growth rates of S. M. A.'s in the West have been about twice the rate of growth for all

S. M. A.'s. *This region, which has experienced a great influx of population at each decade since 1900, has not failed to settle at least one-half of its total regional increase in S. M. A.'s.* The 50-year average is 65 percent of the regional increase occurring in S. M. A.'s. Hence, for the past half-century, the great westward movement has been predominantly a movement toward metropolitan areas rather than a movement toward sparsely occupied land. The closing of the frontier did not stop the westward flow, but merely redirected much of it into the building of metropolitan areas.

A concise picture of the regional trends in metropolitan growth may be obtained from figure 7, which expresses the regional growth rates for S. M. A.'s during each decade since 1900 as a ratio of the national growth rate for all S. M. A.'s.

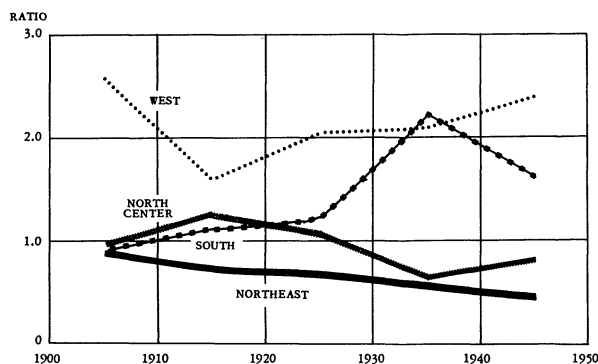


FIGURE 7.—Ratio to the growth rate of all standard metropolitan areas of standard metropolitan growth rates by regions, 1900 to 1950 (class VI standard metropolitan areas).

Size of city in relation to regional growth of S. M. A.'s

It was noted in the analysis of metropolitan growth by size of S. M. A. that there are regional variations in size of S. M. A.'s. Conceivably, a part of the very low rates of growth in the Northeast region and the North Center region, as contrasted with the much higher rates of growth in the South and West, may be due to the fact that much population in the slow-growing regions resides in S. M. A.'s of one million or more which have been shown to grow less rapidly. It is also conceivable that if the

rates of growth by size of S. M. A. are examined separately for each region, some systematic size pattern may be present in one or more regions. Table 10 shows the number of S. M. A.'s of each size in each region, by decades and class of S. M. A. Table 9 shows the rates of growth of each of those size groups by region, by decades, and by classes. From this later table, it appears that there is no such size pattern within any region for the 1940-50 decade.

This size-of-S. M. A. variation can be controlled by standardizing the regional rates for size (just as the size of S. M. A. rates were standardized for regions). The size distribu-

tion of all S. M. A. (class VI) population in the United States in 1950 was used as a standard population. The results of this standardization are as follows:

Region	Rate of growth, 1940-50	
	Unstandardized	Standardized
Northeast.....	10.3	10.3
North Center.....	18.1	18.2
South.....	34.8	29.9
West.....	51.2	52.1

Table 9. - Percent increase in population of standard metropolitan areas, by decades, by regions and size: 1900-1950

Size of S.M.A. (in thousands)	Percent increase 1940-50					Percent increase 1930-40					Percent increase 1920-30				
	Total U.S.	North- east	North Center	South	West	Total U.S.	North- east	North Center	South	West	Total U.S.	North- east	North Center	South	West
Size in 1950: Class VI-A	21.8	10.3	18.2	36.6	52.0	8.5	4.6	5.3	18.2	18.0	27.1	19.0	28.6	32.9	58.9
1,000 & over	18.8	10.7	17.8	36.6	50.9	7.5	5.2	5.1	23.8	19.1	29.8	21.9	34.9	16.4	83.1
500 - 999	26.2	12.6	18.1	34.6	50.2	9.4	4.2	5.5	16.3	15.0	25.8	14.4	26.3	39.0	26.2
250 - 499	24.5	5.0	16.6	39.4	58.8	8.7	1.5	3.9	18.7	17.7	22.5	10.9	21.8	36.2	36.5
100 - 249	25.4	11.8	21.2	32.6	54.2	11.3	5.0	7.2	17.1	23.2	24.1	14.0	21.5	33.5	19.0
Under 100	24.4	...	16.6	34.7	38.2	6.9	...	6.2	8.8	6.2	20.6	...	12.2	45.5	16.9
Size in 1950: Class VI	21.8	10.3	18.1	36.6	52.2	8.5	4.6	5.3	18.4	18.2	27.2	19.0	29.3	32.6	54.8
1,000 & over	18.8	10.7	17.8	36.6	50.9	7.5	5.2	5.1	23.8	19.1	29.8	21.9	34.9	16.4	83.1
500 - 999	26.2	12.6	18.1	34.6	50.2	9.4	4.2	5.5	16.3	15.0	25.8	14.4	26.3	39.0	26.2
250 - 499	24.5	5.0	16.6	39.4	58.8	8.7	1.5	3.9	18.7	17.7	22.5	10.9	21.8	36.2	36.5
100 - 249	25.4	11.8	21.2	32.6	54.2	11.3	5.0	7.2	17.1	23.2	24.1	14.0	21.5	33.5	19.0
Size in 1940: Class V	21.3	10.3	18.1	34.8	51.2	8.3	4.6	5.3	17.9	17.9	27.1	19.1	29.9	32.1	54.3
1,000 & over	18.1	10.6	17.7	23.5	50.9	6.8	5.2	4.7	10.0	19.1	30.6	21.9	36.3	15.6	85.1
500 - 999	25.3	10.5	16.9	39.4	42.9	11.8	3.8	6.3	27.4	9.5	23.6	15.7	25.2	31.3	20.5
250 - 499	22.3	8.6	18.0	38.5	60.8	7.9	2.5	4.1	17.5	24.0	20.8	12.5	19.7	35.7	36.7
100 - 249	27.7	11.4	21.4	31.4	53.2	11.1	5.4	7.5	14.8	17.5	27.2	20.8	27.3	34.7	27.7
Size in 1900: Class I	18.6	10.3	18.0	30.5	48.7	7.0	4.6	5.1	16.7	17.1	26.3	19.6	31.1	21.5	61.2
1,000 & over	11.2	10.6	13.9	...	...	4.8	5.2	3.2	...	...	24.0	21.9	32.8	...	...
500 - 999	26.7	13.6	17.1	21.6	53.3	6.8	5.1	5.4	8.4	8.5	22.3	21.0	19.3	16.6	33.5
250 - 499	19.9	5.8	20.8	38.2	...	7.9	2.0	6.5	24.3	...	27.1	10.6	39.5	20.5	...
100 - 249	28.5	11.7	19.6	28.3	47.1	11.1	3.6	5.4	15.2	20.3	33.3	14.6	20.7	27.1	74.8
Size of S.M.A. (in thousands)	Percent increase 1910-20					Percent increase 1900-10					Percent increase 1900-50				
	Total U.S.	North- east	North Center	South	West	Total U.S.	North- east	North Center	South	West	Total U.S.	North- east	North Center	South	West
Size in 1950: Class VI-A	25.4	18.6	31.2	28.5	40.2	32.0	28.9	29.1	29.7	61.4	177.8	109.8	171.7	254.8	601.8
1,000 & over	25.9	19.3	35.9	22.1	52.9	33.1	31.5	33.5	14.5	79.1	177.7	122.7	205.2	175.2	801.6
500 - 999	24.3	18.1	24.3	29.0	30.8	34.2	23.5	28.1	34.5	95.8	189.8	95.8	150.6	277.5	458.4
240 - 499	27.9	17.2	37.1	34.5	37.9	34.2	26.3	29.3	42.7	75.2	184.5	75.0	162.5	333.0	515.8
100 - 249	21.6	15.1	23.2	24.9	17.5	24.2	18.2	23.9	24.7	75.7	161.7	82.2	141.0	222.8	367.0
Under 100	24.4	...	15.6	66.1	15.7	17.8	...	5.3	72.3	46.4	135.2	...	69.2	510.8	190.7
Size in 1950: Class VI	25.3	18.6	31.6	27.9	40.9	32.0	28.9	29.5	29.1	62.7	177.8	109.8	174.0	251.4	616.8
1,000 & over	25.9	19.3	35.9	22.1	52.9	33.1	31.5	33.5	14.5	79.1	177.7	122.7	205.2	175.2	801.6
500 - 999	24.3	18.1	24.3	29.0	30.8	34.2	23.5	28.1	34.5	95.8	189.8	95.8	150.6	277.5	458.4
250 - 499	27.9	17.2	37.1	34.5	37.9	34.2	26.3	29.3	42.7	75.2	184.5	75.0	162.5	333.0	515.8
100 - 249	21.6	15.1	23.2	24.9	17.5	24.2	18.2	23.9	24.7	75.7	161.7	82.2	141.0	222.8	367.0
Size in 1940: Class V	25.5	18.7	32.2	28.4	41.3	32.3	29.0	29.9	29.7	64.2	177.2	110.2	177.3	249.7	615.4
1,000 & over	26.2	19.2	37.9	18.3	52.9	33.7	32.0	33.0	12.7	79.1	177.7	123.2	208.3	109.2	801.6
500 - 999	20.8	16.4	18.6	25.1	29.5	32.2	22.1	29.4	24.7	125.7	176.4	88.8	138.7	263.7	451.4
250 - 499	26.8	18.9	37.4	32.2	33.4	31.0	26.5	32.4	36.6	56.2	164.7	88.4	167.7	298.8	467.7
100 - 249	26.1	15.4	26.6	30.8	32.8	30.9	18.1	24.0	34.6	80.2	198.1	85.0	160.9	257.6	450.1
Size in 1900: Class I	23.7	18.7	31.0	16.7	42.9	31.3	29.2	31.0	17.8	85.8	160.3	111.7	179.1	158.9	644.8
1,000 & over	20.8	19.2	27.9	...	...	31.9	32.0	31.5	...	...	130.2	123.2	162.6	...	...
500 - 999	18.2	21.3	11.5	16.1	30.4	22.9	22.1	21.0	12.3	42.5	140.2	114.1	98.7	100.5	312.7
250 - 499	29.9	13.5	47.6	18.8	...	28.3	25.5	38.1	16.6	...	174.2	67.2	265.7	186.7	...
100 - 249	26.1	20.2	26.1	21.1	49.9	38.5	22.7	28.6	25.3	124.1	237.8	95.4	144.9	185.3	938.9

Table 10. - Number of Standard Metropolitan Areas in each region, by size: 1900-1950

Size of S.M.A.'s (in thousands)	Number of S.M.A.'s				
	Total U.S.	North- east	North center	South	West
Size in 1950: Class VI-A	162	33	52	59	18
1,000 & over	14	5	5	2	2
500-999	23	6	6	7	4
250-499	41	11	9	14	7
100-249	69	11	24	31	3
Under 100	15	..	8	5	2
Size in 1950: Class VI	147	33	44	54	16
1,000 & over	14	5	5	2	2
500-999	23	6	6	7	4
250-499	41	11	9	14	7
100-249	69	11	24	31	3
Size in 1940: Class V	125	32	35	44	14
1,000 & over	11	4	4	1	2
500-999	13	3	4	4	2
250-499	36	14	8	12	2
100-249	65	11	19	27	8
Size in 1930: Class IV	115	32	34	37	12
1,000 & over	10	4	4	..	2
500-999	9	2	4	3	..
250-499	33	14	8	8	3
100-249	63	12	18	26	7
Size in 1920: Class III	94	30	26	29	9
1,000 & over	8	4	3	..	1
500-999	10	2	5	2	1
250-499	27	12	7	5	3
100-249	49	12	11	22	4
Size in 1910: Class II	71	28	20	15	8
1,000 & over	6	4	2	..	..
500-999	8	1	4	1	2
250-499	20	11	3	4	2
100-249	37	12	11	10	4
Size in 1900: Class I	52	22	16	9	5
1,000 & over	5	4	1	..	..
500-999	5	1	2	1	1
250-499	14	6	5	3	..
100-249	28	11	8	5	4

Standardization leaves almost unchanged the low rates for the Northeast and the North Center. It lowers somewhat the rate for the South. This implies that a small part of the South's recent rapid growth rate is related to the fact that southern S. M. A.'s are concentrated in a size range which, in the Nation, has high rates of growth. Standardization eliminates this size-distribution factor and reduces the rate to an estimate of what it would be if the southern S. M. A.'s had the same size distribution as all the S. M. A.'s in the Nation. The already high rate for the West is made even a little higher by standardization. This implies that the rapid metropolitan growth rates in this region were made in spite of a slightly unfavorable size-of-S. M. A. distribution with respect to the remainder of the Nation.

Hence, there is a marked regional aspect to metropolitan growth which is independent of size of S. M. A. The rapid growth, or failure to grow, of particular S. M. A.'s undoubtedly has some of its roots in unique local conditions. But also, it has other of its roots in broader regional forces which affect other S. M. A.'s

of the region similarly. This is a point worthy of particular note, for there has been a tendency to view metropolitan development as a process which is more or less independent of the regional context.

Distribution of population and of population growth within S. M. A.'s

The pattern of growth within metropolitan areas (central cities and rings) has been described earlier. The data presented there, however, did not state what the past and present distributions of population, and of population growth actually are. This information is contained in tables 11 and 12.

Table 11. - Percentage of standard metropolitan area population in central cities and rings: 1900-1950

Area and class of standard metropolitan area	Percentage distribution					
	1950	1940	1930	1920	1910	1900
Class VI-A (162 areas)						
Standard Metropolitan area	100.0	100.0	100.0	100.0	100.0	100.0
Central cities	57.7	61.8	63.6	65.3	64.1	61.9
Rings	42.3	38.2	36.4	34.7	35.9	38.1
Urban	21.2	20.0	19.9	17.0	15.4	13.5
Rural	21.1	18.2	16.5	17.7	20.5	24.6
Class VI (147 areas)						
Principal standard metropolitan areas	100.0	100.0	100.0	100.0	100.0	100.0
Central cities	57.6	61.7	63.6	65.3	64.2	62.1
Rings	42.4	38.3	36.4	34.7	35.8	37.9
Urban	21.4	20.2	20.1	17.2	15.6	13.6
Rural	21.0	18.1	16.4	17.5	20.2	24.2
Class V (125 areas)						
Principal standard metropolitan areas	100.0	100.0	100.0	100.0	100.0	100.0
Central cities	57.7	61.9	63.7	65.6	64.6	62.7
Rings	42.3	38.1	36.3	34.4	35.4	37.3
Urban	21.9	20.6	20.5	17.5	15.8	13.9
Rural	20.4	17.5	15.8	16.9	19.6	23.4
Class IV (115 areas)						
Principal standard metropolitan areas	100.0	100.0	100.0	100.0	100.0	100.0
Central cities	57.8	62.1	63.9	65.8	64.9	63.1
Rings	42.2	37.9	36.1	34.2	35.1	36.8
Urban	22.2	20.9	20.7	17.7	16.1	14.1
Rural	20.0	17.0	15.3	16.4	19.0	22.8
Class III (94 areas)						
Principal standard metropolitan areas	100.0	100.0	100.0	100.0	100.0	100.0
Central cities	58.0	62.3	64.1	66.2	65.4	63.8
Rings	42.0	37.7	35.9	33.8	34.6	36.2
Urban	22.9	21.6	21.4	18.3	16.6	14.5
Rural	19.1	16.1	14.5	15.5	18.0	21.6
Class II (71 areas)						
Principal standard metropolitan areas	100.0	100.0	100.0	100.0	100.0	100.0
Central cities	58.1	62.4	64.1	66.7	66.3	65.0
Rings	41.9	37.6	35.9	33.3	33.7	35.0
Urban	24.1	22.7	22.4	19.1	17.3	15.2
Rural	17.8	14.9	13.4	14.2	16.4	19.8
Class I (52 areas)						
Principal standard metropolitan areas	100.0	100.0	100.0	100.0	100.0	100.0
Central cities	57.8	62.6	64.3	67.5	67.4	66.5
Rings	42.2	37.4	35.7	32.5	32.6	33.5
Urban	25.3	23.7	23.4	19.7	17.8	15.6
Rural	16.9	13.7	12.3	12.8	14.9	17.9

From table 11 it may be seen that central cities now contain only 57.6 percent of the total S. M. A. population, and that rings contain 42.4 percent. The rural and urban parts of the rings (old definition) each constitute about 21

percent of the total. This is in sharp contrast to the distribution of 1900. At that date, central cities contained two-thirds of the total population of the S. M. A.'s of class I. The remaining one-third contained in the ring was about 54 percent rural.

Table 12. - Percentage of standard metropolitan area total decennial increase in central cities and rings: 1900-1950

Area and class of standard metropolitan area	Percentage distribution					
	1940-50	1930-40	1920-30	1910-20	1900-10	1900-50
Class VI-A (162 areas)						
Standard metropolitan area	100.0	100.0	100.0	100.0	100.0	100.0
Central cities	39.3	40.3	57.4	69.9	71.0	55.4
Rings	60.7	59.7	42.6	30.1	29.0	44.6
Urban	26.7	21.5	30.3	23.4	21.4	25.5
Rural	34.0	38.2	12.3	6.7	7.6	19.1
Class VI (147 areas)						
Principal standard metropolitan area	100.0	100.0	100.0	100.0	100.0	100.0
Central cities	38.7	39.8	57.1	69.7	70.7	55.1
Rings	61.3	60.2	42.9	30.3	29.3	44.9
Urban	27.0	21.9	30.6	23.7	21.7	25.8
Rural	34.3	38.3	12.2	6.7	7.6	19.1
Class V (125 areas)						
Principal standard metropolitan area	100.0	100.0	100.0	100.0	100.0	100.0
Central cities	37.8	39.6	57.0	69.5	70.3	54.8
Rings	62.2	60.4	43.0	30.5	29.6	45.2
Urban	27.9	22.6	31.3	24.1	21.9	26.4
Rural	34.3	37.8	11.7	6.4	7.7	18.8
Class IV (115 areas)						
Principal standard metropolitan area	100.0	100.0	100.0	100.0	100.0	100.0
Central cities	37.3	39.0	56.8	69.5	70.4	54.7
Rings	62.7	61.0	43.2	30.5	29.6	45.3
Urban	28.4	23.2	31.8	24.4	22.1	26.8
Rural	34.3	37.8	11.4	6.2	7.5	18.4
Class III (94 areas)						
Principal standard metropolitan area	100.0	100.0	100.0	100.0	100.0	100.0
Central cities	36.6	39.3	55.9	69.3	70.4	54.5
Rings	63.4	60.7	44.1	30.7	29.6	45.5
Urban	29.3	24.3	33.2	25.3	22.8	27.8
Rural	34.1	36.5	10.9	5.5	6.8	17.7
Class II (71 areas)						
Principal standard metropolitan area	100.0	100.0	100.0	100.0	100.0	100.0
Central cities	36.0	38.6	54.2	68.5	70.4	54.0
Rings	64.0	61.4	45.8	31.5	29.6	46.0
Urban	31.2	26.3	35.3	26.2	23.7	29.4
Rural	32.8	35.1	10.5	5.2	5.9	16.6
Class I (52 areas)						
Principal standard metropolitan area	100.0	100.0	100.0	100.0	100.0	100.0
Central cities	32.2	37.9	52.3	67.9	70.2	52.4
Rings	67.8	62.1	47.7	32.1	29.8	47.6
Urban	33.7	28.5	37.3	28.0	24.7	31.3
Rural	34.0	33.5	10.5	4.1	5.0	16.2

During the period 1900-30, central cities managed to capture more than one-half of the total increase in metropolitan population. That trend was reversed in the 1930-40 decade, and this reversal has also characterized the 1940-50 period. During each of these last two

intercensal periods, the ring has claimed more than 60 percent of the total increase, with rural areas in the ring claiming more than urban areas. The older the S. M. A., the greater the share the urban part of the ring has tended to be. The younger the S. M. A., the greater the share the rural part of the ring has tended to be, in comparison with the urban part.

Thus, by reversing the tendency for central cities to gain a disproportionately large share of the total increase of metropolitan population, both the urban and rural parts of the rings have managed to grow until now their combined population is approaching the population of the central cities in size. Some central cities already are smaller than their own rings. In the not too distant future, this will be the typical rather than the unusual case, if the trends of the past two decades continue.

Size of S. M. A.'s and the growth of rings

The tendency for rings to grow faster than central cities in recent decades has been discussed in a previous section. An attempt is made here to analyze this tendency in terms of size of S. M. A.'s. The necessary information is contained in tables 13, 14, 15, and 16. S. M. A.'s of class V have been taken as the universe of analysis. They were principal S. M. A.'s in 1940 at the beginning of the decade whose growth trends are of greatest interest.

In general, central city rates of growth have been lower in recent decades in large S. M. A.'s than in small. This was true in the 1940-50 decade and in the 1930-40 decade. Before 1930 there appears to have been no systematic relationship between size of S. M. A. and rate of growth of the central city.

Table 13.-Percent increase in population of central cities and rings of Class V standard metropolitan areas, by decades, by size: 1900-1950

Parts of S.M.A.'s and decade	Size of standard metropolitan area in 1940 (in thousands)							
	Total	5,000 & over	1,000-2,999	500-999	350-499	250-349	150-249	100-149
S.M.A.'s Total								
1940-50	21.5	12.2	25.7	25.3	17.9	28.7	28.2	26.9
1930-40	8.3	5.4	8.5	11.8	6.1	10.6	11.3	10.9
1920-30	27.1	26.8	36.0	23.6	20.0	21.9	29.1	24.1
1910-20	25.5	22.0	32.6	20.8	23.5	32.5	28.0	23.0
1900-10	32.3	33.6	33.9	32.2	29.9	32.9	36.6	22.8
1900-50	177.2	144.4	229.5	176.4	140.6	206.6	221.9	163.8
Central cities								
1940-50	13.0	6.0	13.5	14.6	14.5	21.9	18.3	24.6
1930-40	5.1	3.8	4.5	7.5	3.7	7.3	6.9	6.5
1920-30	23.6	19.9	28.5	20.2	19.1	25.6	34.0	29.3
1910-20	27.4	19.1	34.8	22.4	29.4	44.0	38.0	34.3
1900-10	36.2	32.5	32.6	37.1	40.8	42.1	56.8	37.2
1900-50	164.8	108.1	172.6	148.4	157.7	236.1	264.6	216.3
Rings, Total								
1940-50	34.7	25.7	40.0	45.2	23.0	39.2	42.4	30.5
1930-40	13.6	9.1	13.7	20.7	10.0	16.1	18.1	18.9
1920-30	35.9	46.2	46.9	31.4	21.6	16.4	22.0	15.6
1910-20	22.0	31.0	29.5	17.3	14.6	18.1	15.9	8.4
1900-10	25.8	37.3	35.7	22.6	16.9	23.0	18.6	7.9
1900-50	214.9	260.4	310.6	231.3	120.1	173.1	182.6	109.8
Rings, Urban								
1940-50	28.8	19.3	33.9	40.0	17.0	34.5	42.2	50.6
1930-40	9.1	6.6	10.8	14.4	3.0	10.0	14.3	13.8
1920-30	48.4	58.1	54.8	36.1	33.7	23.6	36.4	36.7
1910-20	38.8	46.2	43.7	23.4	23.2	31.2	64.4	26.4
1900-10	51.5	60.0	55.5	41.5	38.6	50.8	57.7	45.7
1900-50	338.0	370.8	406.9	280.6	174.8	261.6	474.8	331.6
Rings, Rural								
1940-50	41.8	44.1	54.1	50.9	27.5	41.3	42.4	27.1
1930-40	19.8	17.2	20.8	28.5	15.9	19.0	19.1	19.8
1920-30	18.9	17.8	30.0	26.0	12.8	13.1	18.6	12.6
1910-20	8.4	4.9	7.1	11.1	9.0	12.9	8.4	6.2
1900-10	10.6	10.4	15.0	7.9	6.2	14.8	14.5	4.7
1900-50	142.1	180.4	198.0	192.9	95.0	146.7	149.7	90.5

Table 14.-Percentage of Class V standard metropolitan area population in central cities and rings, by decades, by size: 1900-1950

Parts of S.M.A.'s and decade (Class V)	Size of standard metropolitan area in 1940 (in thousands)							
	Total	5,000 & over	1,000-2,999	500-999	350-499	250-349	150-249	100-149
Central cities								
1950	57.7	64.9	48.7	59.6	58.2	57.1	54.4	60.8
1940	61.9	58.6	54.0	65.1	59.9	60.3	59.9	61.9
1930	63.7	69.7	56.0	67.7	61.3	62.2	61.3	64.5
1920	65.6	73.7	59.3	69.6	61.8	60.3	69.0	61.9
1910	64.6	75.5	58.3	68.7	58.9	55.6	54.8	56.7
1900	62.7	76.2	58.9	66.3	54.4	51.9	48.0	50.7
Rings, Total								
1950	42.3	35.1	51.3	40.4	41.8	42.9	45.6	39.2
1940	38.1	31.4	46.0	34.9	40.1	39.7	41.1	38.1
1930	36.3	30.3	44.0	32.3	38.7	37.8	38.7	35.6
1920	34.4	26.5	40.7	30.4	38.2	39.7	41.0	38.1
1910	35.4	24.6	41.7	31.5	41.1	44.6	45.2	45.5
1900	37.5	23.8	41.1	33.7	45.6	46.1	52.0	49.5
Rings, Urban								
1950	21.9	24.8	34.2	20.4	17.3	13.0	9.4	6.4
1940	20.6	23.3	32.1	18.2	17.4	12.5	8.5	5.4
1930	20.6	23.1	31.5	17.8	18.0	12.5	8.2	5.3
1920	17.6	18.5	27.6	16.2	16.1	12.4	7.8	4.8
1910	15.8	15.4	25.6	15.8	16.1	12.5	6.1	4.7
1900	18.9	12.9	22.3	14.8	16.1	11.0	5.3	3.9
Rings, Rural								
1950	20.4	10.3	17.1	20.1	24.5	29.9	36.2	32.7
1940	17.5	8.0	13.9	16.7	22.6	27.2	32.6	32.7
1930	16.8	7.2	12.6	14.5	20.7	25.3	30.5	30.2
1920	16.9	7.8	13.1	14.2	22.0	27.3	33.2	33.3
1910	19.6	9.0	16.2	15.4	24.9	32.0	39.1	38.6
1900	23.4	10.9	18.8	18.9	30.5	37.1	46.7	45.3

Table 15. - Percentage of Class V standard metropolitan area total decennial increase in central cities and rings, by decades, by size: 1900-1950

Parts of S.M.A.'s and decade	Size of standard metropolitan area in 1940 (in thousands)							
	Total	3,000 & over	1,000-2,999	500-999	350-499	250-349	150-249	100-149
Central cities								
1940-50	37.8	33.8	28.3	37.6	48.7	45.9	38.3	56.8
1930-40	39.6	49.0	29.7	45.1	37.0	42.8	37.7	38.6
1920-30	67.0	54.7	47.0	59.6	59.8	70.4	69.0	75.3
1910-20	69.5	65.6	62.3	73.9	74.4	75.2	74.3	84.3
1900-10	70.3	73.6	66.7	76.3	74.2	66.4	73.2	82.9
1900-50	64.8	57.0	44.3	56.8	61.0	59.6	57.2	67.0
Rings, total								
1940-50	62.2	66.2	71.7	62.4	61.3	54.1	61.7	43.2
1930-40	80.4	51.0	70.3	56.9	63.0	57.2	62.3	61.4
1920-30	45.0	45.3	53.0	40.4	41.2	29.6	31.0	24.7
1910-20	30.5	34.4	37.7	26.1	25.6	24.8	25.7	15.7
1900-10	29.6	26.4	43.3	23.7	26.8	33.6	26.6	17.1
1900-50	45.2	43.0	55.7	44.2	39.0	40.4	42.8	33.0
Rings, urban								
1940-50	27.9	37.1	42.4	28.9	16.5	15.0	12.7	10.2
1930-40	22.6	26.1	39.9	21.8	9.0	11.9	10.6	6.7
1920-30	31.3	40.1	42.1	24.7	27.1	13.3	9.8	7.3
1910-20	24.1	32.4	34.2	17.8	16.0	12.0	14.0	5.4
1900-10	22.0	23.0	35.0	19.1	19.5	17.0	8.3	7.9
1900-50	26.4	33.1	39.4	23.5	18.8	14.0	11.3	8.0
Rings, rural								
1940-50	34.3	29.1	29.3	33.5	34.8	39.1	49.1	33.0
1930-40	37.8	22.9	30.4	35.1	54.1	45.4	51.8	54.8
1920-30	11.7	5.2	10.9	15.7	14.1	16.3	21.2	17.4
1910-20	6.4	2.0	3.5	8.3	9.6	12.7	11.8	10.3
1900-10	7.7	3.4	8.3	4.6	6.3	16.6	18.6	9.2
1900-50	18.8	9.9	16.3	20.7	20.2	26.4	31.6	25.0

Table 16. - Percent increase in population of central cities and rings of standard metropolitan areas (Class V) by decades, by region and size: 1900-1950

Size of S.M.A. and region	Total	Central city	Ring			Total	Central city	Ring			Total	Central city	Ring		
			Total	Urban	Rural			Total	Urban	Rural			Total	Urban	Rural
Percent increase 1940-50															
S.M.A.'s 1,000,000 & over	18.1	8.8	33.3	26.8	49.8	6.8	4.1	11.5	8.7	19.2	30.6	23.0	46.5	58.4	24.4
The Northeast	10.6	5.2	18.6	13.6	33.3	5.2	4.2	6.8	4.8	13.1	21.9	16.3	31.8	38.2	14.9
The North Center	17.7	7.9	38.5	36.9	42.8	4.7	0.7	14.3	10.4	25.9	36.3	26.6	66.5	89.2	22.9
The South	23.5	10.5	72.9	65.8	74.6	10.0	6.7	24.7	234.1	9.0	15.6	9.7	52.0	11.7	66.2
The West	50.9	28.2	79.6	67.7	105.2	19.1	13.2	27.6	25.9	35.7	83.1	65.9	114.6	147.6	66.1
S.M.A.'s 500,000-999,999	25.3	14.6	45.2	40.0	50.9	11.8	7.5	20.7	14.4	28.5	23.6	20.2	31.4	36.1	26.0
The Northeast	10.5	0.9	19.7	11.3	42.0	3.8	0.2	7.6	4.3	17.5	15.7	10.5	21.6	25.1	12.0
The North Center	16.9	9.4	37.9	39.7	35.7	6.3	2.6	18.0	12.1	26.1	25.2	20.4	45.6	68.5	27.5
The South	39.4	24.7	69.9	90.3	56.3	27.4	22.3	39.5	47.8	34.5	31.3	29.6	35.6	40.5	32.6
The West	42.9	24.9	79.4	142.4	69.0	9.5	0.9	32.4	27.8	33.2	20.5	16.4	33.3	48.4	51.0
S.M.A.'s 250,000-499,999	22.3	17.5	29.5	22.8	33.7	7.9	5.1	12.3	5.2	17.3	20.8	21.6	19.5	30.3	13.0
The Northeast	8.6	4.5	12.9	4.7	20.9	2.5	-0.2	5.6	0.5	11.0	12.5	9.4	16.2	24.9	8.0
The North Center	18.0	11.2	30.6	20.4	36.5	4.1	1.9	8.4	2.9	12.0	19.7	19.0	21.5	28.5	17.1
The South	38.5	31.8	61.6	103.4	40.1	17.5	11.6	31.0	37.6	29.8	35.7	42.1	25.0	31.4	15.2
The West	60.8	42.7	116.2	132.0	108.5	24.0	20.6	35.6	49.3	29.8	36.7	31.7	57.0	112.3	41.5
S.M.A.'s 100,000-249,999	27.7	20.7	38.2	44.5	36.8	11.1	6.8	18.4	14.2	19.4	27.2	32.2	19.7	36.5	16.3
The Northeast	11.4	5.1	18.7	13.7	21.3	5.4	0.5	10.0	7.5	11.4	14.4	11.0	17.9	29.8	12.2
The North Center	21.4	14.7	33.7	37.5	32.9	7.5	2.4	16.5	8.4	20.9	27.3	29.2	23.5	46.1	19.2
The South	31.4	27.3	39.1	116.6	32.6	14.8	11.4	21.8	29.7	21.2	34.7	48.7	12.8	27.3	11.6
The West	53.2	34.4	74.1	84.3	72.0	17.5	11.2	25.4	37.6	23.1	27.7	22.8	34.4	61.7	30.4
Percent increase 1910-20															
S.M.A.'s 1,000,000 & over	26.2	24.3	30.2	44.9	6.1	33.7	32.5	36.5	55.5	12.8	177.7	129.5	286.9	389.3	168.0
The Northeast	19.2	16.5	24.4	33.5	5.3	32.0	31.1	33.6	47.7	11.5	123.2	94.5	177.5	224.6	105.2
The North Center	37.9	35.0	47.9	85.0	8.1	33.0	32.6	34.7	79.9	4.8	208.3	146.2	425.5	842.1	150.4
The South	18.3	31.4	-27.0	30.3	-30.2	12.7	9.7	24.2	1.0	25.8	109.2	86.8	197.3	714.2	161.2
The West	52.9	46.6	66.0	101.2	32.2	79.1	73.0	93.1	216.7	40.4	801.6	511.1	1475.8	3177.1	749.7
S.M.A.'s 500,000-999,999	20.8	22.4	17.3	23.4	11.1	32.2	37.1	22.6	41.5	7.9	176.4	148.4	231.3	280.5	192.9
The Northeast	16.4	16.4	16.5	21.3	5.1	22.1	22.8	21.3	34.0	-0.5	88.8	59.7	121.2	135.1	95.5
The North Center	18.6	19.7	14.6	26.3	4.1	29.4	31.7	21.7	77.2	-4.9	138.7	113.1	225.7	465.4	116.0
The South	25.1	28.8	16.9	27.8	11.5	24.7	29.1	15.9	25.8	11.5	263.7	228.4	335.0	535.7	246.6
The West	29.5	29.1	30.8	16.9	33.2	125.7	159.7	60.7	89.5	56.6	451.4	391.7	565.4	918.5	515.0
S.M.A.'s 250,000-499,999	26.8	34.7	15.9	25.7	10.7	31.0	41.3	19.2	42.2	9.7	184.7	185.9	140.4	200.9	115.4
The Northeast	18.9	26.4	11.2	17.9	5.6	26.5	34.1	19.5	46.4	3.6	88.4	93.3	83.9	126.9	55.5
The North Center	37.4	47.8	20.3	33.6	15.7	32.4	39.1	22.8	38.8	16.1	167.7	177.4	153.9	195.4	135.5
The South	32.2	37.3	23.1	110.2	16.7	36.6	52.9	14.8	-7.0	16.8	298.8	338.9	245.1	895.5	185.2
The West	53.4	30.8	45.1	490.8	19.8	55.2	66.9	21.0	...	14.5	487.7	395.0	707.9	...	425.2
S.M.A.'s 100,000-249,999	26.1	36.5	13.1	52.1	7.6	30.9	47.9	14.5	53.6	10.5	198.1	244.1	153.7	425.8	125.9
The Northeast	15.4	18.9	12.0	43.8	1.3	18.1	28.1	9.9	31.6	4.1	85.0	75.1	89.5	199.5	60.0
The North Center	26.6	38.0	8.1	41.9	3.4	24.0	40.7	4.2	64.2	-0.9	180.9	194.8	120.6	407.7	96.1
The South	30.8	48.4	10.3	112.5	6.8	34.6	57.2	15.4	53.5	14.5	257.6	332.1	145.4	1066.9	119.7
The West	32.8	30.4	36.3	66.6	32.7	80.2	35.0	64.5	735.3	50.3	450.1	351.6	557.6	5805.5	450.9

The rate of growth of the rings tends to have no systematic relationship to the size of the S. M. A. For example, in the 1940-50 decade the rings of S. M. A.'s having 3,000,000 or more inhabitants grew somewhat faster than the rings of S. M. A.'s having 350,000-499,999 inhabitants, but somewhat slower than the rings of S. M. A.'s having 100,000-149,999 inhabitants. Because there is no regular pattern of increase or decrease in rate of growth of ring by size, such differences as exist between the size groups are presumed to be associated with other factors and only incidentally with size.

Of considerable importance for a comprehension of the relationship between S. M. A. size and the suburbanization process is the ratio of ring to central city growth. As table 13 shows, the era of faster growth in rings than in central cities was already underway in the 1900-10 decades in the S. M. A.'s with 1 million or more inhabitants. Even at this early date, however, there had emerged a pattern of growth by size *in which the ratio of ring growth to central city growth varied inversely with the size of the S. M. A.* That pattern has persisted, with exceptions, in all subsequent decades except one. *In other words, the larger the S. M. A. the more rapidly the ring has been growing in comparison with the central city.*

Gradually the tendency for rings to grow faster than central cities spread from the very largest to the medium-size S. M. A.'s. By 1930, it had engulfed all S. M. A.'s. During the decade 1930-40, rings continued to grow while central cities tended to remain stationary. The inverse relationship between size of S. M. A. and ratio of ring to central city growth was again present during the 1940-50 decade, although with exceptions.

The general pattern for rural areas in the ring to grow more rapidly than urban areas in the ring is not a characteristic of all sizes of S. M. A.'s, but only of the large ones. In fact, there is an inverse relationship between the size of S. M. A.'s and the ratio of rural to urban growth in rings. During the earlier decades (1900-20) there was considerable variation in this ratio among size groups of S. M. A.'s, but it was always below unity. The great influx

of population into rural territory appears to have begun almost simultaneously during the 1930-40 decade in all sizes of S. M. A.'s. It has continued, in the 1940-50 decade, among S. M. A.'s of 250,000 or more inhabitants.

The effect of these differential patterns of growth upon the distribution of population within the various size groups of S. M. A.'s is detailed in tables 14 and 15. S. M. A.'s containing 1 million inhabitants or more contained a much smaller share of their total population in central cities in 1950 than in 1900. Also, about 70 percent of the total population increase of these large S. M. A.'s went to the rings. At the other end of the size-of-S. M. A. range, the smallest areas concentrated a larger percentage of their total population in the central cities than in 1900, and allocated a large part of their decennial increase to the growth of the central city. Because they contained few urban places in the ring, a high proportion of their ring growth was rural.

Thus, although the total growth of S. M. A.'s was earlier shown to bear no simple relationship to their size, the internal patterns of growth and distribution do vary with size. The larger S. M. A.'s are much further advanced in the process of building up outlying satellite cities and settling unincorporated and other rural territory than the smaller S. M. A.'s. Small S. M. A.'s are still growing rapidly in their central cities and have only a modest ring development. However, the phase of rapid ring growth is now characteristic of all sizes of S. M. A.'s; the factor of size only introduces variation in the ratio of rural to urban growth in the ring.

The above discussion of ring growth and size of S. M. A. has not controlled the factor of regional variation. Table 17, which presents rates of growth of central cities and rings for each of four size groups of S. M. A.'s standardized for regional variations, provides evidence that none of the conclusions arrived at above is accounted for by differences between the size groups in the region of their principal location. (The standard population used was the total population of class V S. M. A.'s in 1950.) Because the same standard population

was used for all decades, change in regional distribution during the half century is also controlled.

Table 17. - Rates of growth of parts of standard metropolitan areas (Class V) by size, standardized for regional variations

Parts of S.M.A.'s by size	Percent increase					
	1940-50	1930-40	1920-30	1910-20	1900-10	1900-50
S.M.A.'s of 1,000,000 & over	20.6	7.9	33.2	28.9	35.1	238.4
Central cities	9.9	4.8	24.1	28.9	32.2	159.3
Rings	42.4	15.0	57.0	28.2	41.9	451.1
Urban	31.6	27.6	64.9	55.6	76.8	853.3
Rural	58.8	19.0	36.7	1.5	18.8	245.0
S.M.A.'s of 500,000-999,999	22.3	9.8	22.0	20.5	39.0	186.6
Central cities	11.4	5.7	18.2	21.6	43.5	151.8
Rings	42.2	19.5	31.1	18.4	26.9	254.2
Urban	44.1	13.2	38.2	22.4	52.3	363.6
Rural	49.1	26.7	24.4	11.6	11.8	214.6
S.M.A.'s of 250,000-499,999	24.2	8.8	22.3	28.6	34.2	203.5
Central cities	16.9	5.4	21.9	35.7	43.6	207.1
Rings	40.4	15.4	25.2	20.9	19.8	228.8
Urban	35.3	11.3	43.2	98.8	33.3	187.5
Rural	45.2	19.4	18.0	12.9	11.9	175.2
S.M.A.'s less than 250,000	23.7	9.4	23.5	23.5	30.5	185.1
Central cities	15.4	4.5	25.5	31.5	43.6	204.9
Rings	34.6	16.4	21.0	14.7	18.1	181.0
Urban	38.4	13.9	38.3	52.2	145.0	1117.1
Rural	35.8	18.2	16.9	8.8	13.8	153.1

Regional variations in ring growth

In addition to the size difference in the pattern of internal growth of S. M. A.'s, there is also a possibility that there are regional variations in this matter. Data with which to study this problem are contained in tables 16 and 18. Table 16 provides detailed growth data for the S. M. A.'s of each region, classified by size of S. M. A. In table 18, regional variations in metropolitan growth patterns have been summarized more clearly by standardizing for regional variations in size. The following generalizations are worthy of note:

Table 18. - Rates of growth of parts of standard metropolitan areas (Class V) by regions, standardized for variations in size

Parts of S.M.A.'s by regions	Percent increase					
	1940-50	1930-40	1920-30	1910-20	1900-10	1900-60
S.M.A.'s of Northeast	10.3	4.5	18.0	18.1	27.3	105.2
Central cities	4.1	2.2	13.3	18.8	30.0	86.2
Rings	17.7	7.2	25.1	18.8	25.3	137.4
Urban	12.1	4.3	34.2	30.5	44.8	198.5
Rural	27.9	12.7	12.0	4.2	5.8	78.7
S.M.A.'s of North Center	18.2	5.2	30.0	33.1	30.3	180.8
Central cities	9.8	1.4	24.5	35.4	33.8	151.3
Rings	36.0	14.3	47.6	31.6	25.5	295.6
Urban	35.0	9.5	74.4	66.5	73.0	678.1
Rural	37.3	20.9	20.9	7.6	4.6	126.2
S.M.A.'s of South	29.9	14.6	24.8	24.0	22.6	191.3
Central cities	12.3	10.6	25.1	34.9	28.5	204.9
Rings	62.7	27.3	37.7	-5.4	19.8	215.3
Urban	77.2	171.0	25.8	45.9	6.3	737.8
Rural	51.6	21.0	30.2	-2.4	18.4	167.0
S.M.A.'s of West	52.1	18.5	56.5	42.6	81.2	631.5
Central cities	31.5	12.6	45.3	38.5	87.2	447.6
Rings	85.7	29.4	79.5	52.4	70.2	1055.8
Urban	87.0	28.7	120.9	141.3	203.2	2608.9
Rural	91.2	30.3	45.2	29.3	38.8	552.4

(1) There are definite variations among the regions in the tendency toward ring growth. The most decentralized growth is occurring in the Northeast and the North Center regions,

whereas the least decentralized growth is occurring in the South and West. For example, the ratio of ring to central city rate of growth during the 1940-50 and 1900-10 decades by regions is as follows:

	1940-50	1900-10
The Northeast-----	4.3	0.84
The North Center-----	3.7	.75
The South-----	3.2	.69
The West-----	2.7	.81

(2) These regional variations did not have their origin in the last decade, but have been in evidence for several decades. With the exception of the West, which has had a long history of more diffusive metropolitan growth, the regions were ranked in degree of ring growth the same in 1900-10 as in 1940-50, even at a time when central cities were still growing more rapidly than their suburbs.

(3) The tendency toward a greater rural than urban growth since 1930 is much more pronounced in the Northeast than in the other regions. To date it has been entirely absent in the South. The ratio of rural to urban growth in class V S. M. A. rings, by regions, is as follows:

	1940-50	1930-40
The Northeast-----	2.3	3.0
The North Center-----	1.1	2.2
The South-----	.7	.1
The West-----	1.0	1.1

Thus, the tendency toward peripheral growth in S. M. A.'s has both a size component and a regional component. A distinctive set of variations is present for each, even when the effect of the other is controlled by standardization.

Metropolitan and nonmetropolitan growth in geographic divisions

In examining the pattern of growth rates in various parts of the Nation, the four broad census regions have been used in order to permit a cross-classification with size. In most geographic divisions there are too few S. M. A.'s to permit a detailed analysis of metropolitan growth in divisional terms. However, the broad regional differences hide some significant facts and trends in metropolitan and nonmetropolitan growth which a treatment in terms of geographic divisions can bring out.

Table 19 contains information for such an examination.

The slowest metropolitan growth since 1900 has been in New England, and the fastest on

the Pacific Coast. Whereas the New England S. M. A.'s managed to increase only by 82.2 percent, the S. M. A.'s of the Pacific division grew more than sixfold.

Table 19.—Percent increase in population of standard metropolitan areas (Class V) and of nonmetropolitan areas, by divisions: 1900–1950

Geographic division	Number of S.M.A.'s	Percent increase											
		Standard metropolitan areas (Class V)						Nonmetropolitan areas					
		1940–1950	1930–1940	1920–1930	1910–1920	1900–1910	1900–1950	1940–1950	1930–1940	1920–1930	1910–1920	1900–1910	1900–1950
United States	126	21.3	8.3	27.1	26.6	32.3	177.2	7.3	6.2	6.7	7.2	13.9	48.6
New England	11	10.6	2.8	12.2	16.8	22.4	82.2	10.0	4.8	4.8	3.0	5.6	31.6
Middle Atlantic	21	10.2	6.1	21.2	19.3	31.2	119.7	6.5	3.6	5.2	1.6	7.7	27.2
East North Central	25	18.6	6.2	33.4	36.6	30.4	196.2	8.6	5.4	2.1	3.3	4.3	26.7
West North Central	10	16.7	6.6	18.2	19.3	28.5	122.9	-1.3	0.1	1.8	4.3	8.6	13.8
South Atlantic	22	34.9	20.9	26.0	26.0	23.6	222.8	11.0	9.3	8.3	10.3	14.7	66.1
East South Central	9	27.2	12.2	31.4	16.7	24.2	169.6	0.8	8.1	6.4	3.6	9.1	30.3
West South Central	13	40.4	17.3	47.1	45.1	54.9	456.7	1.5	4.3	12.6	11.9	31.4	76.1
Mountain	3	45.3	16.6	27.3	32.8	58.4	349.3	16.7	11.3	7.7	25.6	57.0	176.1
Pacific	11	61.9	18.2	68.4	42.7	89.3	667.8	42.1	20.1	27.2	18.2	64.4	296.3

Although S. M. A.'s of the Middle Atlantic States have grown faster than those of New England, they too have grown more slowly than the national average for all S. M. A.'s. Moreover, the ratio of their growth to the national rate has declined steadily, until in the 1940–50 decade they grew no faster than New England S. M. A.'s and only one-half as rapidly as the national rate.

The two North Central divisions have had unlike growth experiences. At the turn of the century, S. M. A.'s in both divisions were growing rapidly at about the national average. The East North Central division capitalized on its strategic industrial resources around the Great Lakes, and continued to grow rapidly until 1930, at which time its rate declined below the national average. S. M. A.'s in the more agricultural West North Central division, on the other hand, have grown much more slowly at only about three-fourths of the national rate. In the 1940–50 decade, both of these divisions were growing at about this level.

The three divisions which constitute the South have had very different histories of metropolitan growth. The South Atlantic division, which was settled from colonial times, began the century with extremely low rates of metropolitan growth, such as characterized New England. In 1910–20 and 1920–30 it grew at about the national rate. During the depression, its S. M. A.'s distinguished themselves by growing faster than those of any other region

of the Nation, and in the 1940–50 decade have grown 60 percent faster than the national average. The rise of Miami and the other S. M. A.'s of Florida is a major factor responsible for this sudden spurt of growth, although several other S. M. A.'s also participated in it.

The East South Central division had little metropolitan development until 1920. In the three decades since then, it has joined the South Atlantic S. M. A.'s in growing at rates well above the national average. The West South Central division, comprising the S. M. A.'s of the Mississippi Valley, the lower Gulf, and the Texas interior, has grown at very rapid rates in each decade since 1900. Hence, S. M. A.'s in all divisions of the South are now growing rapidly, with the West South Central division continuing to grow considerably faster than the other two.

In the two divisions of the West, it has been the S. M. A.'s of the Pacific which have made spectacular gains, although the metropolitan growth of the Mountain division has been above the national average in all decades. Since 1930, the Mountain division has been more nearly able to keep pace with the Pacific than previously.

The comparison of this divisional pattern of metropolitan growth with the divisional pattern of growth of nonmetropolitan areas reveals that the two bear no fixed relationship to each other. In the Mountain and Pacific divisions, rapid rates of metropolitan growth have been

accompanied by extraordinarily high rates of nonmetropolitan growth. In the four central divisions, heavy metropolitan development has been accompanied by extremely low rates of nonmetropolitan growth. For example, in the decade just ended the West North Central and the East South Central divisions enjoyed a metropolitan growth of 16.7 and 27.2 percent respectively, while the rate of growth of their nonmetropolitan population was near zero. In the New England and the Middle Atlantic divisions the slow growing S. M. A.'s are accompanied by moderate rates of nonmetropolitan growth.

These findings are of fundamental importance in the study of population distribution, for they emphasize the fact that population redistribution can take not only the form of inter-divisional migration, such as the westward movement, but it can also take the form of internal redistribution within the division, such as the absorption of large rural populations in new and expanding S. M. A.'s as has been the case in the West North Central and the East South Central divisions. Such movements are less spectacular than the long-distance migrations, but their effects upon the composition of the region and division are equally as great.

Factors associated with metropolitan growth

In spite of the large amount of attention given to the problems connected with metropolitan growth, as yet no comprehensive analysis of the factors in metropolitan growth has been made. Because such an investigation would be a major research project in itself, it lies outside the scope of the present report. The data presented below are intended only to illustrate the need for more knowledge in this area and to demonstrate that some factors which might commonly be thought to be important are, in reality, relatively poor indicators of probable future metropolitan growth.

Table 20 contains coefficients of linear correlation between 1940-50 rates of growth of the class V S. M. A.'s and a series of variables which might plausibly be regarded as being related to metropolitan growth. Because metro-

politan growth tends to have a strong regional incidence, as demonstrated above, these correlations have been computed separately for each of the four regions as well as for the United States as a whole. To be thought of as being meaningful, a potential factor in metropolitan growth should exhibit a significantly large correlation with rate of growth in each region separately. Moreover, for unambiguous results, the direction of this correlation should be the same in all four regions. In other words, if a correlation between growth and a given variable is significant for some regions and not for others, then the relationship is not general for the entire Nation, but only for certain parts of it. In such cases the meaning of such relationships must be sought in the particular regional context rather than on the level of national generality. Similarly, even if the variable is significantly correlated with growth in all regions, but if the sign of the correlation is positive in some regions and negative in others, then generalization at the national level probably is of only limited usefulness.

Table 20. - Coefficients of linear correlation between percent increase in population of standard metropolitan areas (Class V) 1940-1950 and other selected variables

Variable	Coefficient of linear correlation				
	Total	North east	North Center	South	West
Past growth					
Percent increase 1930-40	.69	.54	.38	.60	.73
1920-30	.51	.25	.56	.40	.54
1900-10	.49	.20	.03	.21	.40
Fertility					
Gross birth rate 1939-40	.22	-.24	.32	-.18	.19
Net reproduction rate 1935-40	-.08	-.27	.09	.28	.23
Size of S.M.A.					
Size in 1940	-.10	.04	-.09	.08	-.09
Size in 1900	-.19	.03	-.15	-.16	-.20
Relative size in 1940 ^{a/}	-.11	.02	-.09	.12	-.13
Age of S.M.A.					
Number of decades principal city has had 50,000 population	-.28	.08	-.19	-.01	-.45
Industrial development					
Percent of employed in manufactures 1940	-.47	.46	.17	-.48	-.41
Percent change in manufactures, 1939-47	.34	-.11	.18	.45	.50

^{a/} Logarithm of size in 1940

With this in mind, a review of the correlations of table 20 shows that only one set of variables, past growth, can validly be thought of as being a factor in metropolitan growth with nationwide generality.¹¹ All of the other vari-

¹¹ To be significant at the 5 percent level, the coefficients of table 20 should have the following values or larger: United States total, 0.17; Northeast, 0.34; North Center, 0.32; South, 0.29; and West 0.50.

ables either show no significant relationship or only a relationship in particular regional contexts.

(a) *Fertility*.—The net reproduction rate, 1935–40, as a measure of the ability of the population to reproduce itself, shows no significant relationship to metropolitan growth. The crude birth rate, as a measure of recent and current levels of actual fertility shows a low degree of positive association with growth, but only in a regional context, in which the direction of the association is positive in some cases and negative in others.

(b) *Size of S. M. A.*—It has been held that as S. M. A.'s increase in size, they become unwieldy, less efficient, more crowded, and are generally less desirable locations either for new industries or for residences. As a consequence, it might be expected that growth would slacken and be diverted to other more desirable areas as the size of the S. M. A. increased. As indicated above, there is some evidence that after a total population of about one million inhabitants has been reached, this may tend to be true on an average, even though there are individual exceptions. Yet, the fact that size throughout the entire size scale is not a general factor in metropolitan growth is indicated by the very low and inconsistent correlations between size and rate of growth for the four regions. For these computations, size has been measured in two ways: as *absolute* size in 1940 (thousands of persons) and as *relative* size in 1940 (logarithm of thousands of persons). This latter measure is used to minimize the effect upon the correlation of the few very large S. M. A.'s which are many times the size of the numerous small S. M. A.'s. When measured in either way, the degree of correlation between rate of growth, 1940–50 and size in 1940, is very low and not statistically significant. Some fairly large S. M. A.'s grew at very rapid rates, and some medium size and small S. M. A.'s grew very slowly or even lost population. The slight negative relationship indicated by the correlation is contributed largely by the lower-than-average rates for S. M. A.'s of one million inhabitants or more, mentioned earlier. Hence, if size is a significant general factor in metro-

politan growth, its effects are indirect or else are confounded with the effects of other variables which were not controlled in preparing table 20.

(c) *Age of S. M. A.*—Another hypothesis of metropolitan growth holds that S. M. A.'s which have old central cities tend to grow slower than S. M. A.'s of the same size with young central cities. The data of table 20 support this hypothesis, for they show a significant correlation, at the national level, between the number of decades that a central city has had 50,000 inhabitants and the rate of growth of its S. M. A. However, this correlation is explained almost entirely by the regional factor, for the correlation is high in the individuals regions only for the West. In other words, age of the central city merely measures indirectly the date at which the metropolitan areas of the West began to develop. In other regions, whose development has been spread over a longer span of time, the age of the central city does not appear to have been related to the rate of growth, 1940–50.

This finding is not inconsistent with the one made earlier that new S. M. A.'s grow more rapidly than already established S. M. A.'s. Many of the new S. M. A.'s are located in the West. Also, the growth of new S. M. A.'s was traced only for a few decades after their entrance into the metropolitan classification, whereas here the age of the central cities has been traced back to the first census in 1790. Hence, the unique factors which appear to have stimulated particular cities and their environs to grow into the S. M. A. status persist for a few decades after the central city attains 50,000 or the total area attains 100,000. But there is no pronounced relationship, either positive or negative, between rate of metropolitan growth and the number of decades that the central cities have had a population of 50,000.

(d) *Industrial Development*.—It might seem probable that highly industrialized areas have potentialities for prolonged and above-average growth. This hypothesis is tested by correlating rate of growth with percent of the labor force employed in manufacturing in

1940. The data suggest that such a generalization is valid for S. M. A.'s in the Northeast during the 1940-50 decade, but that its exact reverse is valid for the South and West, where the areas of most rapid growth tended to be those which, in 1940, were comparatively less industrialized, even within the region.

It is even more plausible that *industrial expansion* might be highly correlated with growth. To test this, the percentage increase in number of wage earners engaged in manufacturing, 1937-47, was correlated with rate of S. M. A. growth, 1940-50. Only in the South and West, the two regions where rapid metropolitan development has taken place and where many new S. M. A.'s have emerged, are the rates of industrial expansion at all closely related to rate of metropolitan growth. Even this generalization must be studied further and its regional context clarified before it can be given nationwide generality.

In summary, only two of the four types of variables which might have been considered as factors in affecting metropolitan growth show a significant, consistent, and meaningful correlation with rate of growth. However, both relationships, age of S. M. A. and industrial expansion, are confined to particular regions and hence cannot be stated as principles with nationwide applicability.

As subject to error as the extrapolation of the past into the future is known to be, the simple

naive assumption that whatever has caused an S. M. A. to grow during the past decade will also cause it to grow in a similar fashion in the future, in comparison with the Nation or region, has a more firm basis in observable fact than attempts to predict on the basis of an analysis of factors. These fairly high correlations between recent and more remote rates of growth have an optimistic implication, however. They constitute evidence that the growth of metropolitan areas is a response to definite factors which exert their force for several decades. Hence, metropolitan growth is not a completely unpatterned and unpredictable set of events. Although some of the factors which were studied here are not the ones which really "explain" metropolitan growth, there is evidence that valid factors must exist and that it remains only for researchers to discover them.

At present, those who are faced with the necessity of forecasting the growth of individual metropolitan areas can be guided by the following principles: (a) the growth of a particular area is related to the growth of other S. M. A.'s in the same region, (b) the growth of a particular S. M. A. is related to its recent past growth, and (c) it may be possible to establish a series of factors within the regional context which will assist in predicting the growth of individual S. M. A.'s. Other than this, prediction must proceed on the basis of intensive case studies of individual S. M. A.'s.

URBANIZED AREAS AND THEIR RELATION TO STANDARD METROPOLITAN AREAS

IN THE PRECEDING CHAPTER, it was noted that one of the outstanding patterns of recent growth in the vicinity of cities of 50,000 inhabitants or more has been the rapid settlement of unincorporated and other territory which would be classified as rural under the definitions of urban and rural area used in the 1940 and earlier censuses. Yet it is a matter of common observation that much of this suburban population actually lives under typically urban conditions and that it resembles the urban population in its social, economic, and demographic composition more than it does the rural population. By 1950, this pattern of urban-like growth in areas classified as rural had come to involve such large populations in so many different areas that it was evident that eventually the traditional urban-rural classification would lose much of its meaning and usefulness if action were not taken to treat as urban these rapidly growing populations which possessed the visible traits of urbanism. Limiting the urban classification to *incorporated* places of 2,500 or more, which in 1940 had constituted the major test of whether an area was urban, excludes these areas of "rural" suburban settlement. Apparently, the trend toward such settlement is one which may be expected to continue indefinitely. Hence, it was evident that the definition of urban population must be broadened to include other areas which also may be presumed to be urban on the basis of objective criteria. For the 1950 census such a change was made even though it meant a considerable loss of comparability with the past.

Urban population as defined by the 1950 census

Under the urban definition established for use in the 1950 census, the urban population comprises, in addition to the population of places of 2,500 or more inhabitants which are incorporated as cities, boroughs, or villages: (a) The densely settled *urban fringe*, including both incorporated and unincorporated areas, around cities of 50,000 or more;¹ (b) *incorporated towns of 2,500* inhabitants or more, except in New England, New York, and Wisconsin where "towns" are simply minor civil divisions of counties; and (c) *unincorporated but densely settled places of 2,500 inhabitants or more* outside any urban fringe.² The urban fringe, together with its central city, is called *urbanized area*. An urbanized area contains, in addition to the central city, all densely settled

¹ For a complete definition of the urban fringe, see ch. I.

² "In the 1950 census the urban population of the United States will include all persons living in unincorporated places with 2,500 inhabitants or more, as well as in the incorporated places of this size, and persons living within the urbanized areas. By contrast, in 1940 only those persons living in incorporated places of 2,500 inhabitants or more and in a few places designated as urban under special rule were classified as urban population.

* * * * *

"All of the unincorporated places to be reported separately lie outside the newly defined urbanized areas which are made up of each of our larger cities and their closely settled surrounding area. Many unincorporated places adjoin or are in the vicinity of large cities, but others form separate centers. Those adjoining cities of 50,000 or more will be included in the urbanized areas defined for such cities. Those adjoining cities of less than 50,000 population will be identified in the same way as outlying unincorporated areas. Each place possesses a definite nucleus of residences, and has its boundaries so drawn as to include if possible all the surrounding closely settled area. It is necessary that the boundaries be clearly defined and identifiable in order to facilitate accurate field enumeration." (Bureau of the Census, release dated November 14, 1949.)

land surrounding the central city which can objectively be called urban. A part of this surrounding fringe consists of satellite cities which would be considered urban under the old definition. But much of it is unincorporated territory and small towns which are devoted to high density residential development, or to commercial, industrial, recreational, transportation, and other activities which are functionally related to the central city.

Urbanized areas, therefore, are simply one of three innovations introduced to improve the urban and rural classifications. They were designed for the purpose of identifying and separating urban population from village and other rural-nonfarm populations in the vicinity of large cities. Their outer boundaries set the limits of the urban type of residence. They are not intended to be a delimitation of the functional boundaries of the metropolitan area of which the city of 50,000 or more is the central city. That is the task of S. M. A.'s.

It would not be correct, however, to maintain that because S. M. A.'s and urbanized areas are two separate units which were designed to accomplish different purposes, the two are not interrelated or should never be used in conjunction. Chapter II has demonstrated that the growth processes in the urban and rural parts of metropolitan rings are not alike. From this it should be presumed that there is a rural as well as an urban aspect of metropolitan areas, and that it is essential that both be explored, using the improved definitions of urban and rural. This can best be accomplished by obtaining a complete picture of the results yielded by the urbanized area delimitation, and then fitting the data for urbanized areas into the system of S. M. A.'s.

Net change in urban and rural populations as a consequence of the new classifications

In the 1940 census, several large and densely settled places, which otherwise would have been omitted from the urban population because they were not incorporated, were included arbitrarily by defining the entire minor civil division (usually a town or township) as "urban under special rule." Applying the urban definition

of 1950 produces two changes in the urban population: (a) additional suburban population which was not recognized as urban under special rule is included, and the urban population is thereby increased; and (b) parts of the minor civil divisions which were urban under special rule in 1940 do not qualify as urban under the 1950 classification, and are transferred from the urban to the rural classification, thereby decreasing the size of the urban population. The change in the urban and rural population resulting from the changed classification is therefore a *net change* produced by two opposing changes. For most States where the special rules were not invoked in 1940, the net change is in the direction of greatly increasing the urban population. Table 21 summarizes by States and geographic divisions the net change resulting from the new urban and rural definitions. For the Nation as a whole, the net change added 7.5 million persons to the urban and removed this many from the rural population. This represents an increase of 8.5 percent in the urban population and a decrease of 12.2 percent in the rural. In New England where the special rule was frequently employed, the net change is to increase the urban population only slightly. In two States, Massachusetts and Rhode Island, the urban population under the new definition is smaller than under the old. Three of the geographic divisions, the South Atlantic, the Mountain, and the Pacific, made extraordinarily large gains in urban population through the change. As a result, the urban population of Maine, Connecticut, Delaware, Maryland, South Carolina, Arizona, and California was increased 20 percent or more. Since the new definition is applied uniformly throughout all States, it is evident that the old definition not only failed to report the full extent of urbanization in the Nation accurately, but that it seriously understated the degree of urbanization of some States and regions in comparison with others. The new definition not only reports the total urban population more accurately, but also makes more precise comparisons between areas.

Loss of comparability with the past partially offsets these advantages. The old definitions of urban and rural population had been carried

Table 21. - Urban and rural population of states and geographic divisions under the old and new definitions, with percentage difference, 1950

Division and State	New definition		Old definition		Percentage difference ^{a/}	
	Urban	Rural	Urban	Rural	Urban	Rural
United States	96,467,686	54,229,675	88,927,464	61,769,897	8.5	-12.2
Divisions:						
New England	7,101,511	2,212,942	6,922,733	2,391,720	2.6	-7.5
Middle Atlantic	24,271,689	5,891,844	22,643,772	7,519,761	7.2	-21.6
East North Central	21,185,713	9,213,655	19,982,717	10,416,651	6.0	-11.5
West North Central	7,305,219	6,756,175	7,018,000	7,043,394	4.1	-4.1
South Atlantic	10,391,163	10,791,172	8,997,310	12,185,025	15.5	-11.4
East South Central	4,484,771	6,992,410	4,079,879	7,597,502	9.9	-5.5
West South Central	8,079,628	6,457,744	7,700,860	6,836,712	4.9	-5.5
Mountain	2,785,888	2,289,110	2,476,628	2,598,370	12.5	-11.9
Pacific	10,861,904	3,624,623	9,105,565	5,590,962	19.3	-32.6
New England						
Maine	472,000	441,774	374,507	539,267	26.0	-19.1
New Hampshire	306,806	226,436	301,249	231,993	1.8	-2.4
Vermont	137,612	240,135	137,612	240,135	.0	.0
Massachusetts	3,959,239	731,275	4,122,138	568,376	-4.0	28.7
Rhode Island	667,212	124,684	700,410	91,466	-4.7	36.3
Connecticut	1,558,642	446,638	1,286,817	720,463	21.1	-37.7
Middle Atlantic						
New York	12,682,446	2,147,743	11,889,008	2,941,184	6.7	-27.0
New Jersey	4,186,207	649,122	3,847,771	987,558	8.8	-34.3
Pennsylvania	7,403,036	3,094,973	6,906,993	3,591,019	7.2	-15.8
East North Central						
Ohio	5,578,274	2,368,353	5,273,206	2,673,421	5.8	-11.4
Indiana	2,357,196	1,577,021	2,217,468	1,716,756	6.3	-8.1
Illinois	6,759,271	1,952,905	6,486,673	2,225,503	4.2	-12.2
Michigan	4,503,084	1,868,682	4,099,007	2,272,759	9.9	-17.8
Wisconsin	1,987,888	1,446,687	1,906,363	1,528,212	4.3	-5.3
West North Central						
Minnesota	1,624,914	1,357,561	1,607,446	1,375,037	1.1	-1.3
Iowa	1,250,938	1,370,135	1,229,433	1,391,640	1.7	-1.5
Missouri	2,432,715	1,521,936	2,290,149	1,664,504	6.2	-8.6
North Dakota	164,817	454,819	164,817	454,819	.0	.0
South Dakota	216,710	436,036	216,157	436,583	0.3	-0.1
Nebraska	621,905	703,605	606,330	719,990	2.5	-2.1
Kansas	993,220	912,075	903,468	1,001,651	9.9	-9.0
South Atlantic						
Delaware	199,122	118,963	147,890	170,195	34.6	-30.1
Maryland	1,615,902	727,099	1,274,618	1,068,383	26.8	-31.9
District of Columbia	802,178	...	802,178	...	.0	...
Virginia	1,560,115	1,758,565	1,335,944	1,982,736	16.8	-11.3
West Virginia	694,487	1,311,065	640,606	1,364,946	8.4	-3.9
North Carolina	1,368,101	2,693,828	1,238,193	2,823,736	10.5	-4.6
South Carolina	777,921	1,339,106	609,225	1,507,802	27.7	-11.2
Georgia	1,559,447	1,885,131	1,381,868	2,062,710	12.9	-8.6
Florida	1,813,890	957,415	1,566,788	1,804,517	15.8	-20.5
East South Central						
Kentucky	1,084,070	1,860,736	985,739	1,959,067	10.0	-5.0
Tennessee	1,452,602	1,839,116	1,264,159	2,027,559	14.9	-9.5
Alabama	1,340,937	1,720,806	1,228,209	1,833,534	9.2	-6.1
Mississippi	607,162	1,571,752	601,772	1,577,142	0.9	-0.3
West South Central						
Arkansas	630,591	1,278,920	617,153	1,292,358	2.2	-1.0
Louisiana	1,471,696	1,211,820	1,363,789	1,319,727	7.9	-6.2
Oklahoma	1,139,481	1,093,870	1,107,252	1,126,099	2.9	-2.9
Texas	4,838,060	2,875,134	4,612,666	3,098,528	4.9	-7.3
Mountain						
Montana	258,034	332,930	252,906	338,118	2.0	-1.5
Idaho	252,549	336,068	234,138	354,499	7.9	-5.2
Wyoming	144,618	145,911	144,618	145,911	.0	.0
Colorado	831,318	493,771	759,939	585,150	9.4	-12.6
New Mexico	341,889	339,298	314,636	366,551	8.7	-7.4
Arizona	416,000	333,587	273,794	475,793	51.9	-29.9
Utah	449,855	239,007	412,518	276,344	9.1	-13.5
Nevada	91,625	68,458	84,079	76,004	9.0	-8.9
Pacific						
Washington	1,503,166	875,797	1,274,152	1,104,811	18.0	-20.7
Oregon	819,518	702,022	732,247	789,094	11.9	-11.0
California	8,539,420	2,046,803	7,099,166	3,487,057	20.3	-41.3

^{a/}Old definition taken as base

back to the first census. Figure 8 presents national totals of these data and portrays the rapid urban development of the United States. The 1950 urban and rural populations by the new definitions are also shown. If it is recog-

nized that most of the discrepancy of 7.5 million between the old definitions and the new 1950 definitions has accumulated since 1920, an approximate revision of the historic trend may be obtained.

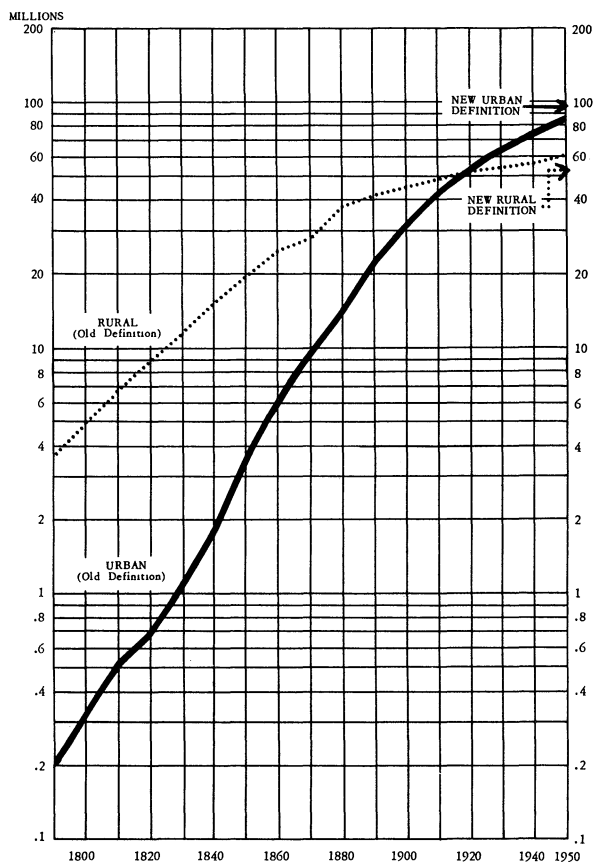


FIGURE 8.—Population of the United States, urban and rural: 1790 to 1950.

Components of net change in urban population resulting from the changed definition

As noted above, a net total of 7.5 million population was added to the urban classification through the change in the urban-rural definition in 1950. A part of this change came as a consequence of establishing urban fringes. A part also came as a consequence of recognizing as urban, individual densely settled unincorporated places of 2,500 or more, lying outside the urbanized areas. The contribution of each of these components of change in increasing the size of the urban population is shown in table 22. The new urban fringe definition contributed 6.2 million persons who otherwise would have been classified as rural. The definition of outlying dense settlements of 2,500 as urban added 1.7 million. But some 338,000 population in these outlying areas had been urban under special rule by 1940 definitions and were classified as rural by 1950 standards. The difference between these opposing changes resulted in a net addition of 1.3 million to the urban population.

Table 22. - Urban population in 1950 according to the old and new definitions

Component	New urban definition	Old urban definition	Gross differences	Net differences
Total	96,467,686	88,927,464	8,215,416	7,540,222
Incorporated places of 2,500 or more	86,550,941	86,550,941		
Urban fringes			6,204,729	6,204,729
Formerly urban under special rule	1,718,422	1,718,422		
Formerly rural territory	6,204,729			
Outside urbanized areas			2,010,687	1,355,495
Formerly urban under special rule, now urban	320,504	320,504		
Formerly urban under special rule, now rural		337,597	-337,597	
Formerly rural territory	1,673,090		1,673,090	

Table 23 shows the net change in each geographic division which resulted from each of the two major components. Of the total net increase to the urban population which resulted from changing the definition, 82 percent was due to the establishment of urban fringes, and 18 percent was due to the recognition of outlying unincorporated places. In other words, delimiting urban fringes added a little more than $4\frac{1}{2}$ times as much to the urban population

as did recognizing outlying unincorporated places as urban. The relative contribution of the fringes was greatest in the divisions of the Northeast and the North Center. In the divisions of the South, where many large textile-mill and other villages are unincorporated, and in the Mountain States, the contribution of the unincorporated areas was larger than in other divisions. In no division, however, did the effect of the later program equal one-half that of the urbanized areas program.

Table 23. - Net change in urban population due to change in definitions, by divisions and source of change, 1950

Division	Source of net change			Percent of total change due to urban fringes
	Total net change	Urban fringes	Outlying unincorporated areas	
U. S. total	7,540,222	6,204,729	1,335,493	82.3
New England	178,778	275,429	-96,651	154.1
Middle Atlantic	1,627,917	1,420,850	207,067	87.3
East North Central	1,202,996	1,051,431	151,565	87.4
West North Central	287,219	280,668	6,551	97.7
South Atlantic	1,393,853	1,003,827	390,026	72.0
East South Central	404,892	280,800	124,092	69.4
West South Central	378,968	288,295	90,673	76.1
Mountain	309,260	167,558	141,702	54.2
Pacific	1,756,339	1,435,871	320,468	81.8

In the above summary, all of the small gain in the urban population of New England is contributed by fringe areas. A net loss, resulting from the smaller urban population than that recognized by the old definition, is attributed to outlying unincorporated areas. The new urban definition delimits only the densely settled parts of New England towns, recognizing parts of some as belonging to urban fringes. The negative balance remaining when the genuinely urban centers and the suburban fringes have been removed consists of rural population which previously was arbitrarily included with the urban population as a consequence of defining whole towns (townships) as individual urban places under special rule.

Distribution of population in urbanized areas, by size

The population in 1950 for each of the 157 urbanized areas, and for the parts of each urbanized area, is reported in appendix table 3. For this table, each urbanized area has been divided into three parts; central cities, cities in the urban fringe, and the remainder of the urban fringe areas. The statistics for cities in the urban fringe were obtained by applying the 1940 urban definitions to the 1950 population. Parts or all of places defined as "urban under special rule" in 1940 and which were in the fringe in 1950, were treated as cities in the urban fringe in 1950. The remainder of the urban fringe areas are the population of the urban fringe in 1950 minus the urban places of the 1940 definition. This "remainder" category, therefore, reports the population gained by changing to the urbanized area definition.

Table 24 presents a national summary of the population of urbanized areas of the United States, together with a summary by size of urbanized area. In 1950, these areas contained a combined population of 69.2 million inhabitants. This was 46 percent of the total population of the United States.

Table 24. - Number and percentage distribution of population in urbanized areas, by size of areas, 1950

Size of urbanized area (in thousands)	Number of inhabitants					Percentage distribution				
	Total	Central cities	Urban fringe			Total	Central cities	Urban fringe		
			Total	Cities	Remainder			Total	Cities	Remainder
Total	69,249,148	48,377,240	20,871,908	14,667,179	6,204,729	100.0	69.9	30.1	21.2	9.0
5,000 and over	22,213,879	14,221,070	6,992,809	5,543,356	1,449,453	100.0	67.0	33.0	26.1	6.8
1,000 - 2,999	16,603,189	10,082,845	6,520,344	5,293,000	1,227,344	100.0	60.7	39.3	31.9	7.4
500 - 999	8,751,241	6,460,661	2,290,580	1,484,344	806,236	100.0	73.8	26.2	17.0	9.2
350 - 499	5,485,955	4,296,279	1,189,674	667,289	522,385	100.0	78.5	21.7	12.2	9.5
250 - 349	3,192,517	2,272,330	919,987	531,473	388,514	100.0	71.2	28.8	16.6	12.2
150 - 249	6,514,965	4,695,465	1,616,400	608,450	1,007,950	100.0	74.4	25.6	9.6	16.0
100 - 149	4,573,254	3,665,926	907,328	403,931	503,397	100.0	80.2	19.8	8.8	11.0
Under 100	3,116,450	2,679,664	436,786	135,356	301,430	100.0	86.0	14.0	4.3	9.7

The remarkable extent to which the areas immediately surrounding large cities have been subjected to dense urban settlement is indicated by the fact that in 1950 almost one-third of the total population of the urbanized areas resided in urban fringes outside central cities.

Of the 20.9 million inhabitants of fringes, a net amount of almost 30 percent (6.2 million) resided in the "remainder" of the fringe which, under the old definition, would have been classified as rural. Its admission to the urban classi-

fication is equivalent to creating about 2,480 new cities of 2,500 inhabitants each.

Large urbanized areas tend to have a much greater proportion of their total population located in fringes than do small urbanized areas. Conversely, a higher proportion of the population of small urbanized areas tends to be contained in the central cities than in large urbanized areas. The central cities of the largest areas are ringed with numerous satellite cities which would have been classified as urban under

the old as well as the new definition. In fact, the urban fringe of the largest areas consists predominantly of satellite cities, whereas the fringe of the smaller areas consists predominantly of unincorporated areas. For example, more than one-fourth of the population in 1950 of urbanized areas containing one million inhabitants or more resided in satellite cities, whereas only about one-twentieth of the population in 1950 of urbanized areas containing 100,000–149,999 inhabitants lived in satellite cities. Hence, the urbanized area definition serves the useful function of delimiting more realistically the actual urban population surrounding medium-size cities of 50,000–500,000 as well as urban population surrounding the largest cities.

Urbanized areas by geographic divisions

The distribution of population in urbanized areas, by geographic divisions, is reported in table 25. Urbanized areas with the largest proportions of their total population in urban fringes (hence with the smallest proportions in central cities) are found in the New England, Middle Atlantic, and Pacific divisions. These, oddly enough, are the areas of oldest and of most recent settlement. Hence, the number of decades during which a division has contained larger cities is not a unilinear factor in determining whether those cities will contain a large or a small proportion of their population in fringe areas. An examination of the data for individual urbanized areas (appendix table 3)

Table 25. - Number and percentage distribution of population in urbanized areas, by geographic divisions, 1950

Geographic division	Number of inhabitants					Percentage distribution				
	Total	Central cities	Urban fringe			Total	Central cities	Urban fringe		
			Total	Cities	Remainder			Total	Cities	Remainder
New England	5,357,531	2,931,293	2,426,238	2,150,809	275,429	100.0	54.7	45.3	40.1	5.1
Middle Atlantic	20,852,666	14,242,459	6,610,207	5,189,357	1,420,850	100.0	68.3	31.7	24.9	6.8
East North Central	15,636,360	11,361,844	4,274,516	3,223,065	1,051,451	100.0	72.7	27.3	20.6	6.7
West North Central	4,380,445	3,467,385	913,058	632,390	280,668	100.0	79.2	20.8	14.4	6.4
South Atlantic	6,413,127	4,739,992	1,673,135	669,308	1,003,827	100.0	73.9	26.1	10.4	15.7
East South Central	2,440,928	1,886,219	554,709	273,909	280,800	100.0	77.3	22.7	11.2	11.5
West South Central	4,455,430	3,909,916	545,514	257,219	288,295	100.0	87.8	12.2	5.8	6.5
Mountain	1,015,396	766,410	246,986	79,428	167,558	100.0	75.7	24.3	7.8	16.5
Pacific	8,697,267	5,069,722	3,627,545	2,191,674	1,435,871	100.0	58.3	41.7	26.2	16.5

will show that in addition to these geographic variations, there is a considerable amount of area-to-area variation in the proportion of urbanized area population contained in the fringes.

There is also a great deal of geographic and area-to-area variation in the composition of the fringe. In the Northeast, the North Center, and the Pacific divisions, satellite cities constitute a larger part of the total fringe population than in the Southern and Mountain divisions. The proportion of the total fringe population which would have been urban in 1950 under the old definition is as follows:

United States total, 70 percent

	Percent		Percent
New England-----	89	East South Central----	49
Middle Atlantic-----	79	West South Central----	47
East North Central----	75	Mountain-----	32
West North Central----	69	Pacific -----	60
South Atlantic-----	40		

Hence, a large share of the urban fringe population in the northeastern part of the United

States would have been urban also under the old definitions, but in the South and West the old definitions would have included only a comparatively small part of the population defined as urban under the new definition. A part of the high proportions for the Northeast is due to the fact that it is in these divisions that the "urban under special rule" definitions were most frequently applied as a part of the 1940 definition. Yet this would not account for all of the large differences among the divisions. It appears that in the South and in the Mountain divisions the development of urbanlike suburbs has tended to take place in unincorporated territory with a greater frequency than in other parts of the country. On the other hand, in the Northeast and Far West they tended to grow predominantly as incorporated satellite cities. In all divisions there was a large urbanlike population which the old definition was failing to classify as urban.

The tendency for a larger share of the population in urbanized areas of the Northeast to

reside in urban fringes, and particularly in satellite cities, is not merely a function of large size of area as such. This may be verified from table 26. Each size group of urbanized area in this region tends to have a smaller proportion of its total population in central cities, a larger proportion in satellite cities, and a smaller proportion in "remainder" area, than groups of the same size in other regions of the United States.³ The West, which is second in degree of fringe development, is characterized by large concentrations of unincorporated fringe population in the vicinity of cities of all sizes. Hence, not only does the degree of fringe development vary from region to region, but the composition of

the fringe structure varies as well. Although a part of the compositional variation is undoubtedly due to regional variations in size of urbanized area, a part of it is due to regional differences not related to size. It may be that older central cities of the Northeast, whose industrial and commercial development came before 1920, tended to suburbanize in the pattern of being built along railway lines; whereas cities whose rise to large size has come since that time, have tended to suburbanize by settling unincorporated area within a wide radius of the central city and not as frequently by consolidating into satellite cities.

Table 26. - Number and percentage distribution of population in urbanized areas, by size of area and region, 1950

Size of urbanized area (in thousands) and region	Number of inhabitants					Percentage distribution				
	Total	Central cities	Urban fringe			Total	Central cities	Urban fringe		
			Total	Cities	Remainder			Total	Cities	Remainder
Total	69,249,148	48,377,240	20,871,908	14,667,179	6,204,729	100.0	69.9	30.1	21.2	9.0
1,000 and over	37,817,068	24,303,915	13,513,153	10,836,356	2,676,797	100.0	64.3	35.7	28.7	7.1
500 - 999	8,751,241	6,460,661	2,290,580	1,484,344	806,236	100.0	73.8	26.2	17.0	9.2
250 - 499	8,676,270	6,568,609	2,107,661	1,198,762	908,899	100.0	75.7	24.3	13.8	10.5
100 - 249	10,888,119	8,364,391	2,523,728	1,012,381	1,511,347	100.0	76.8	23.2	9.3	13.9
Under 100	3,116,450	2,679,664	436,786	135,336	301,450	100.0	86.0	14.0	4.3	9.7
The Northeast	26,210,197	17,173,752	9,036,445	7,340,166	1,696,279	100.0	65.5	34.5	28.0	6.5
1,000 and over	18,984,988	12,179,605	6,805,383	5,861,002	944,381	100.0	64.2	35.8	30.9	5.0
500 - 999	1,381,389	828,806	552,583	444,944	107,639	100.0	60.0	40.0	32.2	7.8
250 - 499	1,895,617	1,231,660	663,957	480,497	183,460	100.0	65.0	35.0	25.3	9.7
100 - 249	3,338,505	2,433,081	905,424	500,616	404,808	100.0	72.9	27.1	15.0	12.1
Under 100	609,698	500,600	109,098	53,107	55,991	100.0	82.1	17.9	8.7	9.2
The North Center	20,016,803	14,829,229	5,187,574	3,855,475	1,332,099	100.0	74.1	25.9	19.3	6.7
1,000 and over	10,363,871	7,242,134	3,121,737	2,675,135	446,602	100.0	69.9	30.1	25.8	4.3
500 - 999	3,682,123	2,858,252	823,871	575,398	248,473	100.0	77.6	22.4	15.6	6.7
250 - 499	2,177,575	1,617,441	560,134	344,613	215,521	100.0	74.3	25.7	15.3	9.9
100 - 249	2,461,730	1,967,346	494,384	208,766	285,618	100.0	80.1	19.9	8.5	11.6
Under 100	1,331,504	1,144,056	187,448	51,563	135,885	100.0	85.9	14.1	3.9	10.2
The South	13,509,485	10,536,127	2,973,358	1,200,436	1,572,922	100.0	79.2	20.8	9.0	11.6
1,000 and over	2,449,185	1,751,886	697,299	334,121	363,178	100.0	71.5	28.5	13.6	14.8
500 - 999	2,553,577	1,932,384	621,193	379,878	241,315	100.0	75.7	24.3	14.9	9.5
250 - 499	3,671,361	2,969,335	702,026	273,032	428,994	100.0	80.9	19.1	7.4	11.7
100 - 249	3,533,361	2,911,199	622,162	182,739	439,423	100.0	82.4	17.6	5.2	12.4
Under 100	1,102,001	971,323	130,678	30,666	100,012	100.0	88.1	11.9	2.8	9.1
The West	9,712,663	5,839,132	3,874,531	2,271,102	1,603,429	100.0	60.1	39.9	23.4	16.5
1,000 and over	6,019,024	3,130,290	2,888,734	1,966,098	922,636	100.0	52.0	48.0	32.7	15.3
500 - 999	1,134,152	641,219	292,933	84,124	208,809	100.0	74.2	25.8	7.4	18.4
250 - 499	931,717	750,173	181,544	100,620	80,924	100.0	80.5	19.5	10.8	8.7
100 - 249	1,554,523	1,052,765	501,758	120,260	381,498	100.0	67.7	32.3	7.7	24.5
Under 100	73,247	63,685	9,562	...	9,562	100.0	86.9	13.1	...	13.1

Integration of statistics for S. M. A.'s and urbanized areas

From the preceding review of the results produced by the new definition of urban population, and particularly by the urbanized area delimitation, several questions arise: What is the urban-rural composition of S. M. A.'s under the new definitions? Is most of the population of S. M. A. rings also concentrated in the urban

fringe, or does a large part of it lie outside the fringe boundaries? What proportion of the population of S. M. A. rings was transferred from the rural to the urban classification as a consequence of changing the urban-rural definitions?

Since the S. M. A. classification and the urbanized area classification both are centered around cities of 50,000 or more, and since the major source of change in the urban population has come from the urban fringes, it is essential

³ There are a few exceptions in comparison with the West.

Table 27.—Percentage distribution of population of standard metropolitan areas in central cities, urban fringes, and outside urbanized areas, 1950.

Standard metropolitan areas	Total	Central cities	S.M.A. Ring		Urban fringe			Outside urbanized areas		
			Urban 1950 definition	Rural 1950 definition	Total	Urban 1940 definition	Remainder	Total ^{b/}	Urban 1940 definition	Uninc. urban
Akron, Ohio	100.0	67.0	18.9	14.1	18.9	16.3	3.6	14.1	...	...
Albany-Schenectady-Troy, N. Y.	100.0	58.1	22.3	19.5	21.5	11.5	10.0	20.4	0.8	...
Albuquerque, N. M.	100.0	66.6	10.1	23.4	...	...	...	33.5	...	10.1
Allentown-Bethlehem-Easton, Pa.	100.0	47.7	24.8	27.5	12.1	8.8	3.3	40.3	12.8	...
Altoona, Pa.	100.0	55.3	16.5	28.2	6.8	4.6	2.1	37.9	9.7	...
Amarillo, Texas	100.0	55.2	5.2	9.6	0.2	...	0.2	14.6	5.0	...
Asheville, N. C.	100.0	42.6	4.4	53.0	4.4	...	4.4	58.0	...	...
Atlanta, Ga.	100.0	49.3	29.3	21.4	25.7	13.3	12.4	25.0	3.8	-0.3
Atlantic City, N. J.	100.0	46.6	39.4	14.0	28.2	21.4	6.8	25.2	11.2	...
Augusta, Ga.	100.0	44.1	18.7	37.1	10.0	2.3	7.8	45.8	4.4	4.3
Austin, Texas	100.0	82.3	2.2	15.5	2.2	...	2.2	15.5	...	...
Baltimore, Md.	100.0	71.0	17.0	12.0	15.8	4.2	11.5	13.2	1.0	0.2
Baton Rouge, La.	100.0	79.4	6.4	14.2	6.4	...	6.4	14.2	...	...
Bay City, Mich.	100.0	59.4	3.6	37.0	...	...	...	40.6	3.6	...
Beaumont-Port Arthur, Texas	100.0	77.7	12.7	9.6	12.7	6.3	6.4	9.6	...	...
Birmingham, N. Y.	100.0	45.7	34.3	22.0	34.3	21.3	13.0	22.0	...	...
Birmingham, Ala.	100.0	58.3	21.9	19.7	21.5	13.1	8.3	20.3	0.6	...
Boston-Lawrence-Lowell, Mass.	100.0	34.0	56.4	9.5	50.9	50.2	0.6	15.1	8.9	-5.3
Bridgeport-Stamford-Norwalk, Conn.	100.0	56.0	29.4	14.6	21.7	6.4	15.3	22.3	7.1	0.6
Brookton, Mass.	100.0	33.2	24.7	42.1	8.8	8.8	...	58.1	27.4	-11.4
Buffalo, N. Y.	100.0	53.3	32.9	13.9	20.0	10.6	9.4	26.7	12.2	0.7
Canton, Ohio	100.0	41.3	30.0	25.8	20.1	13.2	6.9	38.6	9.8	...
Cedar Rapids, Iowa	100.0	69.3	5.7	25.0	5.7	5.7	...	25.0	...	...
Charleston, S. C.	100.0	42.6	30.4	27.0	30.4	...	30.4	27.0	...	...
Charleston, W. Va.	100.0	22.9	22.3	54.9	17.4	11.4	6.0	59.8	4.9	...
Charlotte, N. C.	100.0	68.0	3.5	25.5	3.5	...	3.5	25.5	...	...
Chattanooga, Tenn.	100.0	53.2	15.0	30.9	14.0	5.5	8.6	32.8	2.0	...
Chicago, Ill.	100.0	65.9	29.1	23.6	23.6	10.5	13.1	10.5	4.6	0.7
Cincinnati, Ohio	100.0	55.7	35.3	8.9	34.2	27.9	6.3	10.1	1.1	...
Cleveland, Ohio	100.0	62.4	33.6	4.0	31.5	30.9	0.6	6.1	2.1	...
Columbia, S. C.	100.0	61.0	16.7	22.4	16.7	8.8	7.9	22.4	...	...
Columbus, Ga.	100.0	46.7	22.8	30.5	22.8	13.7	9.1	30.5	...	...
Columbus, Ohio	100.0	74.7	13.1	12.2	12.3	6.7	5.6	13.1	0.8	...
Corpus Christi, Texas	100.0	65.4	19.8	14.7	8.9	...	8.9	25.7	6.0	5.0
Dallas, Texas	100.0	70.7	19.1	10.2	17.0	8.8	8.4	12.3	2.1	...
Davenport, Iowa-Rock Island-Moline, Ill.	100.0	68.6	14.1	17.4	14.1	9.4	4.6	17.4	...	...
Dayton, Ohio	100.0	58.3	27.4	19.3	22.5	4.5	18.1	24.2	4.8	...
Decatur, Ill.	100.0	67.0	7.5	25.4	7.5	...	7.5	25.4	...	...
Denver, Colo.	100.0	73.7	16.9	9.3	14.7	6.1	8.6	11.5	1.7	0.5
Des Moines, Iowa	100.0	78.7	9.7	11.6	9.7	2.5	7.2	11.5	...	...
Detroit, Mich.	100.0	61.3	30.7	8.0	26.8	21.1	5.7	11.8	3.1	0.7
Duluth, Minn.-Superior, Wis.	100.0	55.3	19.8	24.8	1.3	1.1	0.2	43.4	18.6	...
Durham, N. C.	100.0	70.2	2.0	27.8	2.0	...	2.0	27.8	...	...
El Paso, Texas	100.0	66.9	7.3	25.7	3.3	...	3.3	29.8	...	4.0
Erie, Pa.	100.0	59.6	16.9	23.5	9.5	1.6	8.0	30.8	7.3	...
Evansville, Ind.	100.0	60.2	5.6	14.2	5.6	...	5.6	14.2	...	...
Fall River-New Bedford, Mass.	100.0	58.0	25.9	15.1	5.6	5.1	0.6	36.5	25.3	-3.9
Flint, Mich.	100.0	60.2	14.3	25.6	12.7	1.1	11.7	27.1	1.6	...
Fort Wayne, Ind.	100.0	72.7	3.7	23.6	3.7	...	3.7	23.6	...	...
Fort Worth, Texas	100.0	77.2	12.3	10.5	10.2	7.6	2.5	12.6	22.1	...
Fresno, Calif.	100.0	33.2	23.0	43.8	14.1	...	14.1	52.8	9.0	...
Gadsden, Ala.	100.0	59.4	8.0	32.6	...	...	...	40.7	8.0	...
Galveston, Texas	100.0	58.9	28.0	13.1	4.4	...	4.4	36.7	14.7	8.9
Grand Rapids, Mich.	100.0	61.2	17.4	21.3	17.4	2.2	15.2	21.3	...	...
Green Bay, Wis.	100.0	53.6	17.6	28.7	...	...	...	46.4	8.3	9.3
Greensboro-High Point, N. C.	100.0	59.9	6.2	34.0	4.7	...	4.7	35.4	...	1.5
Greenville, S. C.	100.0	34.6	25.3	40.1	...	...	...	65.4	2.6	22.7
Hamilton, Middletown, Ohio	100.0	62.3	8.3	29.4	5.6	...	5.6	34.1	4.7	...
Harrisburg, Pa.	100.0	30.6	40.9	25.5	25.7	15.4	10.3	45.6	13.0	2.1
Hartford-New Britain-Bristol, Conn.	100.0	53.2	27.8	19.0	24.9	12.5	12.5	21.9	1.3	1.6
Houston, Texas	100.0	75.9	16.1	10.0	12.9	9.0	4.0	13.2	2.8	0.4
Huntington, W. Va.-Ashland, Ky.	100.0	47.8	14.3	37.9	14.3	10.3	4.0	37.9	...	...
Indianapolis, Ind.	100.0	77.4	13.6	9.0	13.6	2.0	11.6	9.0	...	...
Jackson, Mich.	100.0	47.3	9.5	43.2	...	...	...	52.7	...	9.5
Jackson, Miss.	100.0	69.1	1.4	29.5	1.4	...	1.4	29.5	...	...
Jacksonville, Fla.	100.0	67.3	14.2	18.5	12.1	...	12.1	20.6	2.1	...
Johnstown, Pa.	100.0	21.7	28.0	50.3	10.3	5.0	5.4	68.0	16.8	0.8
Kalamazoo, Mich.	100.0	45.5	20.2	34.2	20.2	...	20.2	34.2	...	...
Kansas City, Mo.	100.0	55.1	32.5	11.5	29.7	20.9	8.8	14.2	2.3	0.5
Kenosha, Wis.	100.0	72.3	...	27.7	...	...	...	27.7	...	...
Knoxville, Tenn.	100.0	37.0	22.2	40.8	6.9	...	6.9	56.0	5.3	10.0
Lancaster, Pa.	100.0	27.2	22.2	50.7	5.3	1.1	4.2	67.5	16.8	...
Lansing, Mich.	100.0	53.3	25.0	21.7	23.0	11.8	11.2	23.8	2.0	...
Laredo, Texas	100.0	92.5	...	7.5	...	...	...	7.5	...	...
Lexington, Ky.	100.0	55.1	19.8	25.2	...	...	...	44.9	...	19.6
Lima, Ohio	100.0	57.0	3.9	39.1	...	...	...	43.0	3.9	...
Lincoln, Nebr.	100.0	82.6	2.8	14.6	0.5	...	0.5	16.9	...	2.3
Little Rock-North Little Rock, Ark.	100.0	74.4	3.7	21.9	3.7	...	3.7	21.9	...	...
Lorain-Elyria, Ohio	100.0	55.0	14.3	30.7	...	...	...	46.0	14.0	0.3
Los Angeles, Calif.	100.0	45.1	50.9	4.0	46.4	29.9	16.5	8.5	3.8	0.7
Louisville, Ky.	100.0	64.0	18.8	17.2	18.0	8.7	9.3	18.1	0.8	...
Lubbock, Texas	100.0	71.0	5.0	24.0	...	...	...	29.0	5.0	...
Macon, Ga.	100.0	52.0	26.0	22.0	17.2	...	17.2	30.8	8.8	...
Madison, Wis.	100.0	56.7	11.2	32.1	8.3	1.5	6.8	35.0	2.9	...
Manchester, N. H.	100.0	52.7	25.2	22.1	1.0	...	1.0	46.3	24.7	-0.5
Memphis, Tenn.	100.0	82.1	3.1	14.9	2.1	...	2.1	16.8	1.0	...
Miami, Fla.	100.0	50.4	43.8	5.9	42.3	24.4	17.9	7.4	1.5	...

^{b/} For rural see column 4.

Table 27.—Percentage distribution of population of standard metropolitan areas in central cities, urban fringes, and outside urbanized areas, 1950.—Continued

Standard metropolitan areas	Total	Central cities	S.M.A. Ring		Urban fringe			Outside urbanized areas		
			Urban 1950 definition	Rural 1950 definition	Total	Urban 1950 definition	Remainder	Total ^{1/}	Urban 1950 definition	Uninc. urban
Milwaukee, Wis.	100.0	73.2	21.8	5.1	21.8	16.4	5.3	5.1	...	...
Minneapolis-St. Paul, Minn.	100.0	74.6	14.8	10.6	13.2	12.1	1.2	12.1	1.6	...
Mobile, Ala.	100.0	55.8	25.3	20.8	23.3	10.4	13.0	20.8	...	...
Montgomery, Ala.	100.0	76.7	2.1	21.2	2.1	...	2.1	21.2	...	...
Muncie, Ind.	100.0	64.8	...	35.2	...	...	...	35.2	...	...
Nashville, Tenn.	100.0	54.2	26.3	13.6	26.3	0.9	25.4	19.6	...	...
New Haven-Waterbury, Conn.	100.0	49.3	38.9	11.8	18.4	9.2	9.2	32.3	15.9	4.6
New Orleans, La.	100.0	85.2	13.8	2.9	13.0	3.7	9.3	3.7	0.8	...
New York-Northeastern, N. Y.	100.0	66.8	29.4	3.7	28.4	23.8	4.6	4.8	0.4	0.6
Norfolk-Portsmouth, Va.	100.0	65.8	21.7	12.6	20.5	5.2	15.3	15.7	1.2	...
Ogden, Utah	100.0	68.5	16.0	15.5	...	...	...	31.5	9.0	7.0
Oklahoma City, Okla.	100.0	74.8	11.6	13.6	9.7	6.4	3.3	15.4	1.9	...
Omaha, Nebr.	100.0	68.5	17.2	14.3	16.2	12.4	3.8	15.3	1.1	...
Orlando, Fla.	100.0	45.6	21.1	33.3	18.1	7.2	10.9	36.4	5.0	...
Peoria, Ill.	100.0	44.7	30.1	25.8	17.0	7.8	9.2	35.3	13.0	...
Philadelphia, Pa.	100.0	55.4	30.8	12.8	23.2	18.2	5.0	20.4	6.9	0.7
Phoenix, Ariz.	100.0	32.2	39.5	28.3	32.9	7.4	25.5	34.9	5.3	1.3
Pittsburgh, Pa.	100.0	30.6	46.3	21.1	58.7	32.0	6.7	30.7	9.3	0.4
Pittsfield, Mass.	100.0	40.1	37.0	22.8	...	...	...	59.9	37.5	-0.5
Portland, Me.	100.0	45.9	25.6	28.6	21.2	20.2	1.0	32.9	4.3	...
Portland, Oreg.	100.0	55.0	22.2	24.8	19.7	9.0	10.7	27.3	2.4	...
Providence, R. I.	100.0	35.5	53.7	9.8	44.3	43.7	0.6	19.2	15.2	-5.8
Pueblo, Colo.	100.0	70.6	10.8	18.8	10.6	...	10.6	18.8	...	...
Racine, Wis.	100.0	65.0	9.2	25.8	4.9	...	4.9	30.2	4.4	...
Raleigh, N. C.	100.0	48.1	5.0	46.9	2.2	...	2.2	49.6	2.7	...
Reading, Pa.	100.0	42.7	23.4	33.9	17.6	9.4	8.4	39.4	5.5	...
Richmond, Va.	100.0	70.2	11.6	18.3	6.4	...	6.4	21.4	...	3.1
Roanoke, Va.	100.0	68.9	11.1	20.0	11.1	7.8	3.2	20.0	...	...
Rochester, N. Y.	100.0	68.2	17.8	14.0	15.7	7.5	8.2	16.1	3.0	-0.9
Rockford, Ill.	100.0	61.0	21.3	17.7	19.2	5.5	15.7	19.8	2.1	...
Sacramento, Calif.	100.0	49.6	25.1	25.2	23.5	2.2	21.3	26.8	...	1.6
Saginaw, Mich.	100.0	60.5	8.5	31.0	8.5	...	8.5	31.0	...	...
St. Joseph, Mo.	100.0	81.2	2.8	16.1	2.8	...	2.8	16.1	...	...
St. Louis, Mo.	100.0	51.0	38.7	10.4	32.3	24.3	8.0	16.7	5.7	0.7
Salt Lake City, Utah	100.0	66.3	18.7	15.1	16.5	7.5	8.9	17.3	0.9	1.3
San Angelo, Texas	100.0	68.4	...	11.6	...	...	...	11.6	...	...
San Antonio, Texas	100.0	61.6	12.2	10.2	2.7	...	2.7	10.2	...	...
San Bernardino, Calif.	100.0	22.4	44.0	33.6	25.8	12.8	13.0	51.8	17.1	...
San Diego, Calif.	100.0	60.1	22.0	18.0	17.7	11.9	5.8	22.2	3.5	0.8
San Francisco-Oakland, Calif.	100.0	51.8	40.3	8.0	56.9	28.3	8.5	11.4	2.5	0.9
San Jose, Calif.	100.0	32.8	41.6	25.7	27.9	11.4	16.6	39.3	10.6	3.1
Savannah, Ga.	100.0	79.0	5.6	15.4	5.6	...	5.6	15.4	...	...
Savannah, Ga.	100.0	48.8	42.9	8.3	42.9	40.5	2.4	8.3	...	...
Seattle, Wash.	100.0	63.8	23.1	13.1	21.0	2.8	18.2	15.2	1.7	0.4
Shreveport, La.	100.0	72.1	3.5	24.4	3.5	...	3.5	24.4	...	...
Sioux City, Iowa	100.0	80.8	...	19.2	...	...	...	19.2	...	...
Sioux Falls, S. D.	100.0	74.3	...	25.7	...	...	...	25.7	...	...
South Bend, Ind.	100.0	56.5	25.2	18.2	25.2	16.1	9.2	16.1	...	...
Spokane, Wash.	100.0	73.0	9.7	17.3	6.4	...	6.4	20.6	3.8	...
Springfield, Ill.	100.0	62.1	12.0	25.9	12.0	...	12.0	25.9	...	...
Springfield, Mo.	100.0	63.7	8.4	27.9	8.4	...	8.4	27.9	...	...
Springfield, Ohio	100.0	70.3	3.4	26.8	3.4	...	3.4	26.3	...	...
Springfield-Holyoke, Mass.	100.0	47.6	34.5	17.8	30.7	29.8	0.9	21.7	10.5	-6.6
Stockton, Calif.	100.0	35.3	33.9	30.8	20.9	...	20.9	43.8	13.0	...
Syracuse, N. Y.	100.0	64.6	15.2	20.3	13.1	5.5	7.5	22.4	2.1	...
Tacoma, Wash.	100.0	52.1	14.3	33.6	8.7	...	8.7	39.2	5.6	...
Tampa-St. Petersburg, Fla.	100.0	54.1	25.6	20.3	17.7	1.6	16.1	28.2	7.9	...
Terre Haute, Ind.	100.0	61.1	13.1	25.8	13.1	5.2	9.9	25.8	...	...
Toledo, Ohio	100.0	76.8	12.5	10.7	12.5	1.4	11.1	10.7	...	...
Topeka, Kans.	100.0	74.7	9.8	15.5	9.8	...	9.8	15.5	...	...
Trenton, N. J.	100.0	55.7	29.2	15.1	22.3	...	22.3	22.0	5.9	...
Tulsa, Okla.	100.0	72.6	9.7	17.7	8.4	2.8	5.6	19.0	1.3	...
Utica-Rome, N. Y.	100.0	50.4	19.1	30.5	5.6	...	5.6	44.0	13.5	...
Waco, Texas	100.0	65.1	8.3	26.6	6.2	...	6.2	26.7	2.1	...
Washington, D. C.	100.0	54.8	33.9	11.3	33.1	19.0	14.2	12.1	0.8	...
Waterloo, Iowa	100.0	64.9	19.1	16.0	19.1	17.8	1.3	16.0	...	...
Wheeling, W. Va.-Stuebenville, Ohio	100.0	26.8	33.9	39.4	13.5	11.7	1.8	59.7	20.4	...
Wichita, Kans.	100.0	75.7	11.6	12.7	11.6	...	11.6	12.7	...	...
Wichita Falls, Texas	100.0	69.1	12.6	18.4	...	...	...	30.9	9.7	2.9
Wilkes-Barre-Scranton, Pa.	100.0	28.6	55.9	17.4	49.7	42.7	6.8	21.7	3.8	0.5
Wilmington, Del.	100.0	41.1	34.6	24.3	28.7	6.5	22.2	30.2	5.9	...
Winston-Salem, N. C.	100.0	60.1	5.7	34.2	3.2	...	3.2	36.7	...	2.5
Worcester, Mass.	100.0	37.2	37.5	25.2	2.9	1.4	1.5	59.9	38.6	-3.9
York, Pa.	100.0	29.6	28.3	47.1	9.3	2.8	6.5	61.1	11.1	2.9
Youngstown, Ohio	100.0	51.9	35.9	29.2	24.5	20.1	4.5	45.5	13.4	1.0

^{1/} For rural see column 4.

NOTE: A part of the urban fringe of the following urbanized areas lie outside the standard metropolitan area to which the central city belongs:

Area	Population outside S.M.A.	Percent of fringe population outside S.M.A.	Area	Population outside S.M.A.	Percent of fringe population outside S.M.A.
Akron, Ohio	14,669	15.8	Hartford-New Britain-Bristol, Conn.	2,207	1.6
Albany-Schenectady	...	...	Huntington, W. Va.	...	...
Troy, N. Y.	5,474	4.7	Ashland, Ky.	5,674	9.5
Atlanta, Ga.	3,754	2.1	Jacksonville, Fla.	1,502	5.9
Atlantic City, N. J.	5,112	14.1	Lansing, Mich.	2,210	5.8
Baltimore, Md.	1,302	0.6	Manchester, N. H.	607	27.8
Baton Rouge, La.	3,097	23.4	Milwaukee, Wis.	2,569	1.3
Boston-Lowell	...	...	Minneapolis-St. Paul, Minn.	4,110	2.7
Lawrence, Mass.	10,420	0.7	New Haven-Waterbury, Conn.	7,111	6.6
Bridgeport-Stamford-Norwalk, Conn.	18,936	14.7	Providence, R. I.	52,559	9.7
Brookton, Mass.	12,667	43.3	Sacramento, Calif.	9,046	12.2
Charleston, W. Va.	1,391	2.4	St. Joseph, Mo.	1,020	27.6
Chattanooga, Tenn.	2,248	6.1	San Francisco-Oakland, Calif.	36,145	4.2
Chicago, Ill.	881	0.1	Shreveport, La.	16,779	72.9
Cleveland, Ohio	7,580	1.6	Sioux City, Iowa	6,110	100.0
Columbia, S.C.	10,120	29.9	South Bend, Ind.	527	1.0
Davenport, Ia.-Rock Island-Moline, Ill.	1,313	3.8	Toledo, Ohio	11,126	18.3
Fall River-New Bedford, Mass.	1,227	5.5	Trenton, N. J.	10,081	16.4
Harrisburg, Pa.	4,864	6.1	Tulsa, Okla.	2,400	10.2

Some of the above fringes extend into other S.M.A.'s and some extend into non-metropolitan territory. Two urbanized areas, Muskegon, Michigan and Fort Smith, Ark. have no corresponding S.M.A.

Table 28. - Percentage of standard metropolitan area population in central cities, urban fringes, and outside urbanized areas, by size of area, 1950

Size of S.M.A. in 1950 (thousands)	Total	Central cities	S.M.A. Ring		Urban fringe			Outside urbanized areas		
			Urban 1950 definition	Rural 1950 definition	Total	Urban 1940 definition	Remainder	Total ^{a/}	Urban 1940 definition	Uninc urban
All areas	100.0	57.7	28.6	13.6	24.0	16.9	7.1	18.2	4.3	0.3
3,000 & over	100.0	61.6	32.8	5.6	29.4	23.2	6.1	9.1	2.8	0.6
1,000 - 2,999	100.0	50.1	38.7	11.3	27.3	27.3	6.3	16.3	5.3	-0.3
500 - 999	100.0	60.7	25.3	14.0	20.6	12.4	8.5	18.7	4.7	-0.0
350 - 499	100.0	55.4	24.9	16.6	19.6	11.7	7.9	22.0	6.1	-0.8
250 - 349	100.0	48.1	24.4	27.4	17.3	6.5	10.8	34.6	6.1	1.0
150 - 249	100.0	58.4	16.4	25.2	12.0	4.1	7.9	29.6	3.7	0.7
100 - 149	100.0	60.8	12.4	26.7	7.0	2.4	4.7	32.1	3.9	1.5
Under 100	100.0	69.7	6.4	23.9	1.6	...	1.6	28.7	3.4	1.4

^{a/} For rural see column 4.

Table 29. - Percent of standard metropolitan area population in central cities, urban fringes, and outside urbanized areas, by region and size of area, 1950

Region and size of S.M.A. (In thousands)	Total	Central cities	S.M.A. Ring		Urban fringe			Outside urbanized areas		
			Urban 1950 definition	Rural 1950 definition	Total	Urban 1940 definition	Remainder	Total ^{a/}	Urban 1940 definition	Uninc. urban
All areas	100.0	57.7	28.6	13.6	24.0	16.9	7.1	18.2	4.3	0.3
The Northeast	100.0	53.7	34.1	12.3	27.8	22.7	5.1	18.5	6.5	-0.2
The North Center	100.0	63.0	24.5	12.4	21.0	15.7	5.3	16.0	3.1	0.4
The South	100.0	65.0	18.7	18.4	15.7	6.7	8.9	21.3	2.1	0.9
The West	100.0	50.3	36.9	12.8	32.1	18.8	13.3	17.6	3.9	0.9
The Northeast										
1,000 & over	100.0	56.8	35.1	8.1	31.0	26.4	4.6	12.2	4.0	0.1
500 - 999	100.0	46.2	36.5	17.3	22.4	14.9	7.5	31.4	14.8	-0.7
250 - 499	100.0	46.9	29.7	23.3	20.9	15.8	5.1	32.1	9.8	-1.0
100 - 249	100.0	44.1	26.1	29.7	13.4	6.9	6.6	42.5	13.6	-0.9
Under 100	...	...	...	...	...	...	...	...	...	...
The North Center										
1,000 & over	100.0	63.2	30.0	6.8	25.5	21.9	3.6	11.3	3.9	0.6
500 - 999	100.0	64.7	24.2	11.1	23.0	15.9	7.1	12.3	1.0	0.2
250 - 499	100.0	57.5	21.3	21.2	16.3	7.5	8.8	26.2	5.0	...
100 - 249	100.0	64.8	12.3	23.0	10.7	3.7	6.9	24.6	1.2	0.4
Under 100	100.0	65.9	4.8	29.3	1.4	...	1.4	32.7	2.1	1.5
The South										
1,000 & over	100.0	62.5	25.8	11.6	24.8	11.9	12.9	12.6	0.9	0.1
500 - 999	100.0	67.4	20.1	12.4	18.4	10.3	8.1	14.2	1.7	0.0
250 - 499	100.0	59.5	20.6	19.9	16.2	5.3	10.9	24.3	3.5	0.9
100 - 249	100.0	61.6	12.0	26.4	8.6	2.4	6.2	29.8	1.4	2.0
Under 100	100.0	76.5	6.1	17.3	.0	...	.0	23.4	5.4	0.7
The West										
1,000 & over	100.0	47.4	47.3	5.3	43.2	29.4	13.8	9.5	3.4	0.7
500 - 999	100.0	62.2	21.2	16.6	18.5	7.2	11.3	19.3	2.3	0.4
250 - 499	100.0	40.8	29.8	29.3	21.7	6.0	15.7	37.4	6.9	1.2
100 - 249	100.0	58.0	18.4	23.6	9.9	...	9.9	32.1	5.9	2.6
Under 100	100.0	69.6	13.2	17.2	5.5	...	5.5	24.9	4.3	3.4

^{a/} For rural see column 4.

that the two types of data be integrated. It is evidently in S. M. A.'s that the greatest change in rural-urban classification has taken place.

In table 27 is presented the information necessary for answering the above questions for each S. M. A. Summaries by size of S. M. A., and by region and size together (for class VI-A S. M. A.'s) are shown in tables 28 and 29, respectively. It should be emphasized that in these three tables, the unit of observation is the S. M. A. As the footnotes at the end of table 27 show, not every urbanized area lies entirely within an S. M. A.⁴ Because of string-like settlements along highways and river valleys, or for other reasons, the fringe areas frequently extend beyond the S. M. A. boundary into non-

metropolitan territory. These tables exclude all such extensions into nonmetropolitan territory. Such fragments of urban fringes are properly treated as urban population outside S. M. A.'s.

Under the new urban definition, 86.4 percent of the population of S. M. A.'s is urban (57.7 percent in central cities and 28.6 percent in rings) and only 13.6 percent is rural. These proportions vary greatly by size of S. M. A. and by region. In the largest S. M. A.'s, those with 3 million or more inhabitants, 94.4 percent of the population was urban, whereas in S. M. A.'s smaller than 350,000 only 73 to 76 percent of the population was urban. The highest proportion of S. M. A. population found to be urban is in the Northeast and North Center regions, whereas the most rural S. M. A.'s are found in the

⁴ Conversely, two urbanized areas, Fort Smith, Ark., and Muskegon, Mich., have no corresponding S. M. A.'s.

South. In all regions, large S. M. A.'s have a larger proportion of urban population than small S. M. A.'s.

Urban fringes contained, in 1950, 24.0 percent of the total population of S. M. A.'s. However, there is great diversity among the S. M. A.'s in this respect. Many whose central cities became S. M. A.'s for the first time in 1950, have no urban fringe population whatsoever, for there was no advance indication that the city would be of sufficient size to warrant delimiting the fringe boundaries prior to the enumeration. At the other extreme, a few S. M. A.'s such as those of Boston and Los Angeles have approximately 50 percent or more of their total population in urban fringes. The proportion of the S. M. A. population located in fringe areas is roughly proportional to size: the larger the S. M. A., the larger the proportion of its population which tends to fall in fringe areas. Conversely, the smaller S. M. A.'s tend to have smaller proportions of their total population located in fringes. This pattern is due in part to the tendency, noted in chapter II, for central cities of smaller S. M. A.'s to contain a large proportion of the total S. M. A. population.

For the S. M. A.'s of the United States as a whole, 57 percent of the ring population is within the urban fringe and 43 percent lies outside the urban fringe. In other words, the fringe as defined for the 1950 census comprises less than three-fifths of the population which is socially and economically directly integrated with the metropolitan center. The large S. M. A.'s tend to have a considerably greater percentage of their total ring population in urban fringes than do smaller S. M. A.'s. In fact, only in S. M. A.'s which contain half a million or more population is the fringe population larger than the population outside the fringe area but within the S. M. A. Areas smaller than this have more than half their ring population outside fringes.

The new urban classifications had the net effect of transferring 7.4 percent of the S. M. A. population from the rural to the urban classification. This is 17.5 percent of the total ring population. *Thus, more than one-sixth of the ring population has had its classification*

changed from rural to urban under the 1950 definitions. It is evident, therefore, that the new definitions have a profound effect upon the classification of ring populations. About 96 percent of this reclassification (7.1 percent of the total S. M. A. population) was caused by the urban fringe definition, and only about 4 percent (0.3 percent of the total S. M. A. population) was caused by recognizing densely settled outlying unincorporated places and towns as urban. This latter change, of course, could occur only outside urban fringes, for individual unincorporated places were not separately identified within the fringe. (Most of the increase to the urban population resulting from the application of this part of the definition accrued to nonmetropolitan, rather than to S. M. A.'s. In fact, the principal reason for using it in 1950 was to include large unincorporated places in open-country areas.) The net increase in the urban populations of S. M. A.'s resulting from the changed urban definition was 6,340,258. Of this, 6,048,931 was contributed by the urban fringe and 291,327 by the outlying unincorporated area.

Table 28 shows that the greatest gains in urban population under the new fringe delimitation were made by medium size and smaller S. M. A.'s, those with 150,000-999,999 inhabitants.

The data of table 29 permit a simultaneous examination in detail of the urban-rural composition of S. M. A.'s by regions and size. The largest S. M. A.'s of the West are unusually suburbanized; they have more than one-third of their total population in urban fringes. The S. M. A.'s of the South are unique in that an extraordinary small percentage of their S. M. A. population is contained in urban fringes. The Northeast and North Center regions have about the same proportion of their S. M. A. population in fringes as has the national average. Within each region, the generalizations made above, with respect to size, remain valid.

An outstanding characteristic of S. M. A.'s of all sizes in the West is their marked tendency to have a large unincorporated fringe population. Whereas only slightly more than 5 per-

cent of the total population of S. M. A.'s in the Northeast and North Center were in such areas, 8.9 percent of the South's and 13.3 percent of the West's S. M. A.'s population were in this category. Hence, the new urbanized area definition increased the urban population of S. M. A.'s in the latter two regions relatively much more than in the first two.

Population per square mile in S. M. A.'s and urbanized areas

Occasionally the need arises for comparing the density of settlement of two places. Although population per square mile is only a crude measure and is difficult to interpret precisely, it is the index which has been used most frequently. Appendix tables 4 and 5 show the land area and population per square mile of each S. M. A. and each urbanized area. Area and density figures are also shown for central cities and rings of S. M. A.'s and for central cities and urban fringes of urbanized areas. National summaries by size for both units of area are presented in table 30.

Table 30.—Population per square mile of standard metropolitan areas and urbanized areas, by size, 1950.

Size of area (in thousands)	Standard metropolitan area			Urbanized area		
	Total	Central cities	Rings	Total	Central cities	Rings
All areas	398	7515	174	5438	7788	3200
1,000 & over	1278	13501	573	7254	13867	3905
500 - 999	454	5523	188	4514	6053	2629
250 - 499	172	5054	83	4422	5876	2496
100 - 249	209	4664	88	3893	4998	2246
Under 100	87	4058	27	3790	4465	1968

Since the central cities of S. M. A.'s and of the urbanized areas are the same in a high proportion of instances, the density of the central cities is about the same for both. (One secondary central city of an S. M. A. may be less than 50,000, but its population must be equal to one-third or more of the population of the major central city which has a population of 50,000.) Hence, the difference between the two types of areas in population per square mile is due largely to differences in density between rings of S. M. A.'s and fringes of urbanized areas. The density of urban fringe areas is 3,200, while that of S. M. A. rings is 174 per square mile, or only about one-eighteenth as much. Clearly, urban fringes are very densely

settled. S. M. A. rings, in comparison, are very sparsely settled. Moreover, the variation in density is much less among urban fringes than among S. M. A. rings.

Table 30 does not reveal the full extent of the difference in density between the two types of area, for most of the population and land area of the fringe is also contained in the S. M. A. A better comparison would be one which divided the S. M. A. ring into two parts, that part lying inside urban fringe boundaries and the remainder of the S. M. A. ring outside urbanized areas. Exact data for making such a comparison are not available, because the land area of the parts of urban fringes which extend beyond S. M. A. boundaries is not known. However, these extensions are such a small proportion of the total land area involved that any reasonable estimate of this land area will yield almost the same results as an exact measurement. Such an estimate has been made by assuming that the population of the parts of urbanized areas outside S. M. A. boundaries (which is known) is as dense as urban fringe populations of the same size urbanized area. By dividing the outlying population by the assumed density, by size groups, an estimate of the unknown area was obtained. By subtracting the population and estimated land area of the parts of urbanized areas outside S. M. A.'s from the totals for urbanized areas, the data needed to compute the density of that part of urbanized areas lying within S. M. A.'s were obtained. These estimated data yield the following results:

Size of S. M. A. (in thousands)	Estimated population per square mile of S. M. A. rings, 1950	
	Part within urbanized areas	Part outside urbanized areas
All areas-----	3, 216	77
1,000 and over-----	3, 807	175
500-999-----	2, 820	92
250-499-----	2, 264	51
100-249-----	2, 058	66
Under 100-----	1, 371	25

These estimates emphasize that the average density of S. M. A. rings outside the closely built-up urban fringe areas is very low in comparison with the central city and the urban part of the suburbs.

Since population and land area statistics are available for both units, there will be a choice, in 1950, of using data for urbanized areas or for S. M. A.'s in making density comparisons. The choice will depend upon the problem and the inferences to be drawn from the statistics. Probably it is the data for urbanized areas, rather than data for S. M. A.'s, which will answer the questions about density asked most frequently by interested persons.

In general, two types of hypotheses may be tested with data for population density. The first type relates to crowding, congestion, and the questions as to whether there is adequate space for recreation, rearing children properly, and good public health. These hypotheses refer to *residential density*. Indexes to measure density of this type, in order to permit comparisons between different areas or parts of a city, should be based on a ratio of population to the land area available for residential or community use, including parks, playgrounds, and other spaces available for family or neighborhood use, but excluding land with industrial, commercial, or other uses. Statistics for such land areas by type of use are difficult to obtain, and are not available for S. M. A.'s or urbanized areas. Hence, the statistician is forced to accept the nearest reasonable approximation. Since the hypotheses to be tested with these data are all related to urban residence, it is to be expected that the most reasonable approximation would be that which was a ratio of the population in an urban unit to the area of that unit. This would call for statistics for urbanized areas, because the intent of these areas is to delimit the genuinely urban population associated with a city. Hence, for comparing the density of places in order to draw inferences about crowding, congestion, or residential density and community living conditions, statistics for urbanized areas are superior to the same data for S. M. A.'s. It is to the built-up areas of the two places that reference is made when

it is asserted that the New York area is more densely settled than the Chicago area. Hence, it is the urbanized area, as the outer limit of urban settlement in such places, which should be used in making such comparisons. Inasmuch as one of the major bases for delimiting urban populations was density, the density data for urbanized areas have an exactness of meaning and a comparability which other density data for areas delimited on another basis could not have.

The second type of hypotheses which can be tested with density data relates to the *intensity of land use*. If, in two broad and identical areas, the population per square mile is greater in one than in the other, it may be presumed that the economy of the more dense area makes more intensive use of natural and other fixed resources than does the economy of the less dense area. The proper land area for constructing indexes of this type should consist of only that land which has resources which are used or are potentially useful to the population under its present economic development. A ratio of population to available and useable land would then provide the index needed. However, statistics of useable or used land are also difficult to acquire. In the absence of accurate information, the statistician usually expresses a ratio of population to total land area, without raising the question of use. It is frequently on this basis that the densities of continents, nations, or regions are compared. Wherever there are large unused or virtually unused areas of wasteland included in such comparisons (deserts, mountains, swamps, etc.) the validity of the inference is less certain. In some cases, geographers and others who use density statistics have used tillable land, or land in crops, as the basis for making comparisons and inferences about intensity of land use and the pressure of population upon resources. In other situations such a limitation has no meaning.

If, for any reason, a statistician desires to compare the general intensity of land use in any two metropolitan areas, the S. M. A. densities of appendix table 4 may be used. However, it should be recognized that implicit in their use is the assumption that all of the S. M. A. area is

integrated into the metropolitan economy and is available for use. Their use also assumes that all units of the land area are equally usable in the direct metropolitan economy. In many cases neither of the above assumptions is valid. The principal criterion in incorporating counties into the S. M. A. was the presence of significant numbers and proportions of nonagricultural populations which were socially and economically integrated with the central city. The *place of work* of such people is most frequently in the central city or in the urban fringe. The outlying parts of many S. M. A. rings are used primarily for residence, part-time farming, and other low-density activities, and much of the area in the outer ring is not valued for industrial or commercial use. Hence, with reference to such activities, the urbanized area may be a better unit for measuring density than the S. M. A. The accidents of county size tend to account for a part of the variation between S. M. A.'s in the intensity of land use.

Whenever considerable areas of wasteland, low-density farmland, and other lands of low-density uses are found inside the S. M. A. boundaries, it is even more difficult, if not impossible, to place an interpretation upon the statistics. There are some flagrant examples of this problem in the S. M. A.'s as delimited for 1950. San Bernardino city is located in one corner of a huge county containing 20,131 square miles. Most of the county is almost uninhabited desert and wasteland. This single county is so large that it contains nearly 10 percent of the total land area of all S. M. A.'s combined. Because of this peculiar combination of circumstances, the density of the S. M. A. ring

is only 11 persons per square mile. For similar reasons, the ring of San Angelo S. M. A. has only 5 persons per square mile, and that of Laredo, Texas, has only one person per square mile. Other S. M. A.'s with low-ring densities are Amarillo, Austin, Duluth-Superior, Fresno, Lincoln, Lubbock, Phoenix, Pueblo, Sioux City, and Sioux Falls. In every case there is a large wasteland or low-density agricultural area, usually combined with a small central city. In other words, the large units of land area which lower the density are contributed by the minority of the population which is only secondarily related to the central city.

It is believed that most statisticians will find that the density statistics for urbanized areas, either as measures of urban congestion or as measures of density in place of work, will fulfill their needs. However, if it is thought necessary to use density data for S. M. A.'s for testing hypotheses about land use in S. M. A.'s, it would be best to do so in segments, using separately data for the central city, the urban fringe, and the area outside urban fringes. The large units of wasteland and farmland would then be isolated in the "outside urban fringes" category, where they can be interpreted explicitly. If some such refinement is not made, then it behooves the researcher to be completely familiar with the nature of the ring of all S. M. A.'s which he groups into any set of categories for use in computing density statistics. The few S. M. A.'s with large amounts of desert, mountains, or other low-density land, and the S. M. A.'s composed of very large counties will markedly affect the density figures obtained.

GROWTH TRENDS IN INDIVIDUAL STANDARD METROPOLITAN AREAS

GENERAL FINDINGS about national and regional trends in growth and urban-rural composition of S. M. A.'s, such as those made in the two preceding chapters, may be useful in two ways. First, they constitute a body of knowledge which should be kept in mind in interpreting the results of other social and economic studies pertaining to metropolitan or urban areas. Patterns of population distribution and growth are fundamental aspects of the national economy and of the national social structure. There should be widespread familiarity and appreciation of them, for they provide hypotheses and explanations in interpreting other events and changes which occur. Second, broad national and regional trends provide convenient and useful reference points with which to study the growth trends in particular areas. A large proportion of the specialists who make extensive use of statistics for metropolitan areas are primarily interested in one particular metropolitan area. For them, general trends and patterns are useful primarily insofar as they can assist in interpreting what is happening in the single S. M. A. with which they are concerned at the time. To this group belong many civic groups primarily interested in maintaining and expanding business activity like the utility companies and central department stores whose interests are affected substantially by changing patterns of population distribution, marketing and advertising firms, city and regional planners, and urban land and housing analysts. Each of these groups may be interested in only a few aspects of metropolitan areas, and hence it must study the general research reports and interpret them as they apply to its problems. Yet there are a few comments

which apply to all efforts to interpret data for a particular area in terms of the general findings for a broader class of area of which it is a member.

This final chapter undertakes to show briefly how the person interested in a particular metropolitan area may interpret its recent growth and pattern of population distribution by relating them to the findings of chapters II and III. The suggested general procedure for doing this is to compare the statistics for the individual S. M. A. with statistics for comparable groups of S. M. A.'s. For purposes of illustration, it has been assumed that the Los Angeles S. M. A. is the object of particular attention. The tables for this report have been designed in such a way that any statistics prepared for a grouping of S. M. A.'s is also reported for each individual S. M. A.¹ Appendix tables 1, 2A, 2B, 3, 4, and 5, and table 27 in chapter III all contain data for individual S. M. A.'s or for individual urbanized areas. Hence, each general rate or percentage for the Nation, region, or size class can be matched with comparable statistics for each S. M. A.

Variations in growth

An aspect of growth which all too frequently is neglected in the study of population trends is *growth variation*, or the tendency for the growth rates for individual places to deviate from the average rate for all places. Sometimes the fact is forgotten that average rates for the

¹ In some tables, rates and percentages are shown but not the actual numbers. Anyone interested in obtaining a transcript of the population counts on which the rates or percentages are based may obtain them from the Scripps Foundation for the cost of photostating.

Nation, a region, or a size group are only a composite of the rates for numerous local communities. When the growth rate of a particular area, such as an S. M. A., is compared with the growth rates for a grouping of S. M. A.'s, it is useful to know how closely about the average rate the rates for the individual S. M. A.'s that constituted the group were clustered. If the deviation from the average is great, then it should occasion no surprise if an individual S. M. A. has a growth rate quite unlike the average rate. If, on the other hand, an individual S. M. A. deviates markedly from the average, while most S. M. A.'s are compactly clustered about the average, the individual S. M. A. should be looked upon as an exception to the trend. Thus, a knowledge of growth variation must be coupled with a knowledge of growth averages in order to interpret the data for particular places in their proper perspective.

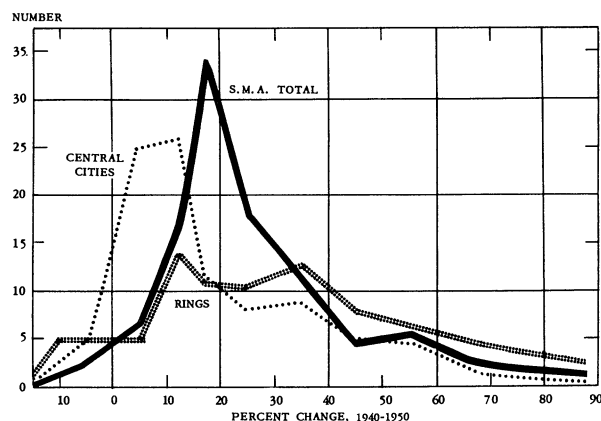


FIGURE 9.—Frequency distribution of growth rates of standard metropolitan areas, central cities and rings, 1940 to 1950.

Statisticians measure the degree of variation from average among a set of data in terms of a unit called "standard deviation." Among a set of figures which are normally distributed about their average, approximately two-thirds will have values which lie within plus or minus one standard deviation of the arithmetic mean. The values for approximately 95 percent of the

figures would fall within plus or minus two standard deviations of the mean.

The standard deviation is a measure of absolute dispersion, for it is expressed in terms of the particular unit being used in a given problem. A measure of relative dispersion, which will permit a direct comparison of the over-all variability of two or more sets of data, may be computed by dividing the standard deviation by the arithmetic mean. This is termed the "coefficient of variation." Following is a summary of standard deviations, coefficients of variation, and arithmetic means for several measures of metropolitan growth. They will permit the reader to determine whether the deviation from the national average of the area in which he is particularly interested is an extraordinary event or whether it falls outside the range of variation exhibited by most S. M. A.'s. Variations beyond one standard deviation are sufficiently deviant from the mean to cause the investigator to want to develop explanations of why they should be so large.

Measures of central tendency and dispersion in selected indexes of S. M. A. growth (percent)

Rate	Mean growth of S. M. A. pop.	Mean of S. M. A. growth rates	Standard deviation	Coefficient of variation
S. M. A.'s, 1940-50:				
Total S. M. A.-----	21.3	25.6	19.0	74.2
Central cities-----	13.0	22.8	30.7	134.6
Rings-----	34.7	39.0	36.2	92.8
Urban-----	28.8	65.3	90.9	139.2
Rural-----	41.8	37.2	36.0	96.8
S. M. A.'s, total, 1930-40-	8.3	11.0	11.9	108.2
S. M. A.'s, total, 1920-30-	27.1	29.7	28.9	97.3
S. M. A.'s, total, 1900-40-	128.5	177.8	203.7	114.6

As an additional aid in visualizing the extent of variation among the growth rates of S. M. A.'s and their parts, the following table states the percentage of S. M. A.'s falling in each of several growth intervals:

Rate of change, 1940-50	S. M. A. total	Central city	Ring total	Ring urban	Ring rural
Total-----	100. 0	100. 0	100. 0	100. 0	100. 0
- 10 and under--	1. 2	1. 2	3. 7	2. 6	4. 3
0 to -9-----	2. 5	5. 6	6. 2	4. 3	8. 7
0 to 9-----	8. 6	30. 9	6. 2	9. 4	5. 0
10 to 14-----	10. 5	16. 0	8. 7	10. 3	8. 1
15 to 19-----	21. 0	7. 4	6. 8	6. 8	5. 0
20 to 29-----	21. 6	9. 9	12. 4	12. 0	14. 9
30 to 39-----	13. 6	11. 1	15. 5	6. 0	13. 0
40 to 49-----	5. 6	6. 2	9. 9	6. 8	11. 8
50 to 59-----	6. 8	5. 6	8. 1	6. 8	9. 3
60 to 74-----	3. 7	3. 1	8. 1	6. 0	6. 8
75 to 99-----	4. 3	. 6	8. 1	9. 4	6. 8
100 and over----	. 6	2. 5	6. 2	19. 7	6. 2

From the body of evidence presented, it may be seen that population growth rates are subject to a great deal of variation. The standard deviation of S. M. A. growth rates was 19.0 percent. This means that about two-thirds of the S. M. A.'s grew at rates between 6.6 and 44.6 percent, and that the remaining one-third grew even faster or slower than this. Yet, as the coefficients of variation show, the relative variation among S. M. A. growth rates is smaller than among the growth rates for central cities, rings, or the urban and rural parts of rings.

Several implications of fundamental importance may be drawn from these data. *First*, statisticians are generally agreed that average rates computed from such heterogeneous data should not be taken seriously as "typical" of the individual members of the group. When such a large share of the individual members deviate greatly from the average value, the arithmetic mean ceases to be a really typical or representative value. A much better standard in this case would be the growth rates of subgroups of S. M. A.'s which have similar economic bases and are located in the same region.

Second, it is evident that there is no average or typical rate of suburban growth and peripheral expansion. The area-to-area variation in this respect is also very great, particularly for outlying satellite cities. Before the process of peripheral growth can be fully under-

stood, this variation must be analyzed and explained.

Third, the average national rates of growth of S. M. A.'s and their parts (obtained by summing the S. M. A. population for successive decades and computing rates on these totals) may be quite different from the simple average of the rates for individual S. M. A.'s (obtained by summing the growth rates of S. M. A.'s and dividing by the number of S. M. A.'s). This difference arises from the fact that the population of the few largest S. M. A.'s comprise such a large share of the national total that it impresses its growth pattern on the national averages. The arithmetic mean of S. M. A. growth rates, on the other hand, gives equal weight to small and to large S. M. A.'s.

Fourth, the modal rate of S. M. A. growth (rate at which the greatest number of S. M. A.'s were growing) does not coincide with either the average national growth rate of the S. M. A. population or the mean of individual S. M. A. growth rates. The few areas which grew extraordinarily rapidly tend to pull the averages to a point above the modal rate of growth.

Because of these factors, one should be cautious in making inferences about the growth behavior of a particular S. M. A. by comparing it with national rates such as those presented in chapters II and III of the present report. With this note of caution, the discussion of interpreting growth trends in individual S. M. A.'s may be resumed. National trends are useful and informative aids for understanding the behavior of S. M. A. population as a whole, but they should not be taken as a prediction of how a particular S. M. A. should grow.

Total growth

The growth of an individual S. M. A. can be compared with the growth of any general category of S. M. A.'s to which it belongs. For example, its rate of growth may be compared with the rates of growth of S. M. A.'s of the same class, of the same size, or of the same region, or to S. M. A.'s which simultaneously belong to the same class, size, and region. For example, the Los Angeles S. M. A. belongs to class I; in 1900, its size placed it in the 150,000-

249,999 size group; it belongs in the region of the West. The following summary provides the data necessary for comparing the growth experience of the Los Angeles S. M. A. with these categories of S. M. A.'s:

Decade	Los Angeles S. M. A. ¹	All class I S. M. A.'s ²	All S. M. A.'s 150,000-249,999 in 1900 ³	S. M. A.'s of the West ⁴	S. M. A.'s of the same region, size, and class as Los Angeles ⁵
1940-50.....	49.8	18.6	29.8	48.7	47.1
1930-40.....	25.3	7.0	11.8	17.1	20.3
1920-30.....	133.2	26.3	38.6	61.2	74.8
1910-20.....	85.3	23.7	30.6	42.9	49.9
1900-10.....	183.5	31.3	39.1	85.8	124.1
1900-50.....	2,199.0	160.3	265.0	644.8	938.9

Sources:

¹ Appendix tables.

² Table 1.

³ Table 5.

⁴ Table 8.

⁵ Table 9. The size classification is for S. M. A.'s with 100,000-249,999 in 1900.

The column on the extreme right in the above tabulation is for S. M. A.'s which have the same class, size, and region classification as the Los Angeles S. M. A. In analyzing the growth trends for some individual S. M. A.'s, the data for this multiple-factor classification will be very useful. In this particular instance the data must be used cautiously, for the group contains only four S. M. A.'s, Los Angeles, Portland, Denver, and Seattle, and unique conditions in one or more of these four can affect the average. Moreover, since Los Angeles is one of the four, to a certain extent it is indirectly being compared with itself.

It is immediately apparent that the Los Angeles area has grown faster during each decade since 1900 than the S. M. A.'s of its size and class in the Nation. It has also grown faster than S. M. A.'s of the same region, and faster than the S. M. A.'s which have the same size-class-region classification. Its growth history has been more nearly paralleled by the S. M. A.'s of the same region, and most divergent from S. M. A.'s of the same class. Over the decades, the disparity between the growth of the S. M. A.'s of the region and the growth of the Los Angeles S. M. A. has narrowed, until in the last decade they were almost the same.

Hence, these data suggest that the era in which the Los Angeles area far outstripped not only cities in the slower-growing regions but also much smaller areas in the same region is probably past. For the next few years, a useful but crude indicator of its growth may be the average growth of all S. M. A.'s of the West. Until about 1930, the Los Angeles area was one of the outstanding focal points of growth in the West. Now it is, and probably in the future will be, less outstanding in this respect than some other areas of the West.

That the Los Angeles area is now growing only about as fast as other S. M. A.'s of the West should not be allowed to hide the fact that in comparison with the balance of the Nation this is a very rapid rate. Its 1940-50 rate is almost two and one-half times the rate of S. M. A. growth in the Nation. As the follow-

Thirty fastest-growing S. M. A.'s, 1940-50

Rank	Name of S. M. A.	Population in 1950	Percent increase 1940-50
1	Albuquerque, N. Mex.....	145, 673	109. 9
2	Lubbock, Tex.....	101, 048	95. 1
3	San Diego, Calif.....	556, 808	92. 4
4	Miami, Fla.....	495, 084	84. 9
5	Baton Rouge, La.....	158, 236	79. 0
6	Corpus Christi, Tex.....	165, 471	78. 6
7	Phoenix, Ariz.....	331, 770	78. 2
8	San Bernardino, Calif.....	281, 642	74. 8
9	Norfolk-Portsmouth, Va.....	446, 200	72. 3
10	San Jose, Calif.....	290, 547	66. 1
11	Orlando, Fla.....	114, 950	64. 0
12	Mobile, Ala.....	231, 105	62. 8
13	Sacramento, Calif.....	277, 140	62. 7
14	Fort Worth, Tex.....	361, 253	60. 2
15	Wichita, Kans.....	222, 290	55. 1
16	Fresno, Calif.....	276, 515	54. 9
17	Dallas, Tex.....	614, 799	54. 3
18	San Francisco, Calif.....	2, 240, 767	53. 3
19	Houston, Tex.....	806, 701	52. 5
20	Tacoma, Wash.....	275, 876	51. 5
21	Washington, D. C.....	1, 464, 089	51. 3
22	Tampa-St. Petersburg, Fla.....	409, 143	50. 4
23	San Angelo, Tex.....	58, 929	49. 9
24	Los Angeles, Calif.....	4, 367, 911	49. 8
25	Stockton, Calif.....	200, 750	49. 6
26	El Paso, Tex.....	194, 968	48. 8
27	San Antonio, Tex.....	500, 460	48. 0
28	Ogden, Utah.....	83, 319	46. 9
29	Seattle, Wash.....	732, 992	45. 2
30	Austin, Tex.....	160, 980	45. 0

ing listing of the thirty fastest-growing S. M. A.'s in the Nation indicates, only 23 of the 162 S. M. A.'s grew faster than the Los Angeles area, 1940-50. All but two of the 23 were much smaller in size. With the exception of Washington, D. C., Norfolk-Portsmouth, and Wichita, all are located along the Gulf coast, in the Southwest, or in the West.

Of the 14 S. M. A.'s with one million or more inhabitants in 1950, only two (San Francisco and Washington, D. C.) surpassed the Los Angeles area in rate of growth. No other S. M. A. of this size even approached it in the 1940-50 decade. Detroit, the next most rapidly growing S. M. A. of more than a million residents, grew only 54 percent as fast as the Los Angeles S. M. A. The growth of these largest areas, ranked according to their size in 1950, is as follows:

Growth rates of S. M. A.'s with 1 million or more inhabitants, 1940-50

Rank of S. M. A. in size	Name of S. M. A.	Population in 1950	Percent increase 1940-50
1	New York-Northeastern New Jersey-----	12, 911, 994	10. 7
2	Chicago-----	5, 495, 364	13. 9
3	Los Angeles-----	4, 367, 911	49. 8
4	Philadelphia-----	3, 671, 048	14. 7
5	Detroit-----	3, 016, 197	26. 9
6	Boston-----	2, 875, 876	8. 3
7	San Francisco-----	2, 240, 767	53. 3
8	Pittsburgh-----	2, 213, 236	6. 3
9	St. Louis-----	1, 681, 281	17. 4
10	Cleveland-----	1, 465, 511	15. 6
11	Washington, D. C.-----	1, 464, 089	51. 3
12	Baltimore-----	1, 337, 373	23. 5
13	Minneapolis-St. Paul-----	1, 116, 509	18. 7
14	Buffalo-----	1, 089, 230	13. 6

Many readers interested in individual S. M. A.'s may want to know the names of the thirty slowest-growing areas, to match the above list of the 30 fastest-growing areas. It is presented below for easy reference:

Thirty slowest-growing S. M. A.'s, 1940-50

Rank of S. M. A. in rate of growth	Name of S. M. A.	Population in 1950	Percent increase 1940-50
162	Scranton, Pa.-----	257, 396	-14. 6
161	Wilkes-Barre-Hazleton, Pa.-----	392, 241	-11. 2
160	Wheeling, W. Va.--- Steubenville, Ohio---	354, 092	-2. 8
159	Johnstown, Pa.-----	291, 354	-2. 4
158	Altoona, Pa.-----	139, 514	- . 6
157	Duluth, Minn.---Superior, Wis.-----	252, 777	- . 5
156	Sioux City, Iowa-----	103, 917	. 3
155	St. Joseph, Mo.-----	96, 826	2. 9
154	Fall River-New Bedford, Mass.-----	381, 569	4. 6
153	Terre Haute, Ind.-----	105, 160	5. 5
152	Reading, Pa.-----	255, 740	5. 7
151	Pittsburgh, Pa.-----	2, 213, 236	6. 3
150	Atlantic City, N. J.---	132, 399	6. 7
149	Providence, R. I.---	681, 815	7. 5
148	Utica-Rome, N. Y.---	284, 262	8. 0
147	Boston-Lawrence-Lowell, Mass.-----	2, 875, 876	8. 3
146	Worcester, Mass.-----	546, 401	8. 3
145	Manchester, N. H.---	156, 987	8. 4
144	Pittsfield, Mass.-----	132, 966	8. 7
143	Huntington, W. Va.--- Ashland, Ky.-----	245, 795	8. 9
142	Allentown-Bethlehem-Easton, Pa.-----	437, 824	10. 4
141	Albany-Schenectady-Troy, N. Y.-----	514, 490	10. 5
140	Lancaster, Pa.-----	234, 717	10. 5
139	New York-Northeastern, N. J.-----	12, 911, 994	10. 7
138	Rochester, N. Y.-----	487, 632	11. 3
137	Binghamton, N. Y.---	184, 698	11. 4
136	Springfield, Ill.-----	131, 484	11. 5
135	Youngstown, Ohio-----	528, 498	11. 6
134	Brockton, Mass.-----	189, 468	12. 2
133	Springfield-Holyoke, Mass.-----	455, 565	12. 6

Growth within the area

To assist in interpreting the rates of growth for central cities, rings, and the rural and urban parts of rings for a particular S. M. A., a comparison similar to that made above for

total S. M. A. growth is useful. The data necessary to make this comparison for the Los Angeles S. M. A. is as follows:

Area and decade	Los Angeles S. M. A. ¹	Class I S. M. A. ²	Size group ³	Region ⁴	Region and size ⁵
Central cities:					
1940-50.....	31.0	9.6	9.9	31.5	28.2
1930-40.....	21.5	4.1	4.8	12.6	13.2
1920-30.....	114.7	20.4	24.1	45.3	65.9
1910-20.....	80.7	23.9	28.9	38.5	46.6
1900-10.....	211.5	33.1	32.2	87.2	73.0
1900-50.....	1,822.7	126.4	159.3	447.6	511.1
Rings, total:					
1940-50.....	69.8	33.6	42.4	85.7	79.6
1930-40.....	29.7	12.2	15.0	29.4	27.6
1920-30.....	158.6	38.6	57.0	79.5	114.6
1910-20.....	92.0	23.3	28.2	52.4	66.0
1900-10.....	150.7	27.8	41.9	70.2	93.1
1900-50.....	2,639.6	227.4	451.1	1,055.8	1,475.8
Rings, urban (old definition):					
1940-50.....	55.6	26.4	31.6	87.0	67.7
1930-40.....	25.8	8.6	27.6	28.7	23.9
1920-30.....	207.7	49.7	64.9	124.9	147.6
1910-20.....	128.9	37.3	55.6	141.3	101.2
1900-10.....	371.6	49.7	76.8	203.2	216.7
1900-50.....	6,403.7	322.2	853.3	2,608.9	3,177.1
Rings, rural (old definition):					
1940-50.....	98.5	46.1	58.8	91.2	103.2
1930-40.....	38.2	19.1	19.0	30.3	35.7
1920-30.....	90.8	21.5	36.7	45.2	66.1
1910-20.....	57.0	6.6	1.5	29.3	32.2
1900-10.....	73.6	8.8	18.8	38.8	40.4
1900-50.....	1,326.5	145.1	245.0	552.4	749.7

Sources:

¹ Appendix table 1.

² Table 1.

³ Table 17.

⁴ Table 18.

⁵ Table 16.

It will be noticed that standardized rates, from tables 17 and 18, are used in the above summary. It is permissible to use either standardized or unstandardized rates in making region and size comparisons. Use of the standardized rates permits the statistician to say with confidence that differences between the rates being compared are not produced by the factor for which the control data are standardized. It should also be noted that the size and region comparisons are made with data for class V S. M. A.'s rather than for class I. Hence, class of S. M. A. is not controlled in the size and regional comparisons.

The central city, the ring, and the rural and urban parts of the ring of the Los Angeles

S. M. A. have grown much faster than those of S. M. A.'s of the same size or class in the Nation. Until the 1940-50 decade, its central city and ring were also growing faster than those of other S. M. A.'s in the region. Its growth was not typical of the growth of other large cities in that its ring area grew at a tremendously rapid pace at the same time its central city was growing rapidly. Its ring was growing much faster than its central city as early as the 1910-20 decade, at a time when the rings of other class I S. M. A.'s were only growing about as rapidly as the central cities. Although the rates of growth of the class I central cities have declined, relative to the national rate, since the 1920-30 decade, the rates of central city growth for Los Angeles have remained very high, even for the region. However, in the 1940-50 decade, Los Angeles city grew at about the same rate as cities in the region. Its rate of growth (31.0 percent) is extraordinarily high for the Nation, but is only about average for central cities of the rapidly growing S. M. A.'s of the West.

Until 1940, the ring of the Los Angeles S. M. A. grew at rates from two to four times those of S. M. A.'s of the same size and class in the nation. Until 1930, its ring grew more rapidly than the rings of other western S. M. A.'s. Its ring grew rapidly again during the 1940-50 decade, but less rapidly than the rings of other S. M. A.'s in the West. This was true of growth in both the urban and rural (old definition) parts of the ring. Hence, not only has the total growth of the Los Angeles area slowed down to about the regional level, but the growth in all of its parts has slowed down to this level also. Nevertheless, the growth rates for all parts of the S. M. A. are extremely rapid by national standards. Between 1940 and 1950, the central city increased by almost one-third; the ring increased by more than two-thirds. The rate of increase in the rural part of the ring was almost 100 percent.

Since the data for the size and region groupings are for class V S. M. A.'s, the size of Los Angeles is taken as of 1940. For this census, it falls in the "over one-million" size group. The right-hand column of the above tabulation con-

tains only two S. M. A.'s, Los Angeles and San Francisco. From 1900 to 1940, the Los Angeles area grew at rates from two to four times those of the San Francisco area, and its central city and ring growth were considerably more than those of San Francisco. But in the 1940-50 period, the San Francisco S. M. A. grew faster than the Los Angeles area. This resulted from a very rapid growth of the San Francisco ring (105.8 percent). Los Angeles city continued to grow faster than San Francisco city between 1940 and 1950.

Rural-urban composition of the area

Table 27 of chapter III provides statistics for determining the urban-rural composition of individual S. M. A.'s. Tables 28 and 29 provide basic data for size and regional groups. Data for Los Angeles, and for the groups with which Los Angeles may be compared have been assembled from these sources in the following summary:

Rural-urban composition of the S. M. A., 1950

Area	Los Angeles S. M. A. ¹	Size 3,000,000 and over ²	Region West ³	Region and size ⁴
Total.....	100.0	100.0	100.0	100.0
Central cities.....	45.1	61.6	50.3	47.4
Rings:				
Urban.....	50.9	32.8	36.9	47.3
Rural.....	4.0	5.6	12.8	5.3
Urban Fringe.....	46.4	29.4	32.1	43.2
Urban 1940 definition.....	29.9	23.2	18.8	29.4
Remainder.....	16.5	6.1	13.3	13.8
Outside urbanized area:				
Total.....	8.5	9.1	17.6	9.5
Urban, 1940 definition.....	3.8	2.8	3.9	3.4
Unincorporated area.....	.7	.6	.9	.7

Sources:

¹ Table 27.

² Table 28.

³ Table 29.

⁴ Table 29. Size for these data is 1 million and over.

The Los Angeles S. M. A. is much more decentralized (in the sense that a larger proportion of its total population resides outside the central city in the suburban ring) than other S. M. A.'s of its size and region. In fact, only two S. M. A.'s of 1 million inhabitants or more

in 1950, Boston and Pittsburgh, have a larger percentage of their total population in the ring.

Los Angeles' large ring development, however, is almost entirely urban. Only 4 percent of its total S. M. A. population is classified as rural under the 1950 definitions. About two-thirds of the ring population resides in cities which would have been classified as urban under the old definition. The unusual situation in which Los Angeles city encloses and is enclosed by numerous incorporated places, including Long Beach, Beverly Hills, Burbank, Compton, Glendale, Inglewood, Pasadena, Huntington Park, and South Gate, contributes to this large urban population. However, the city also has a very large urban fringe population living outside incorporated places. In fact, 16.5 percent of the total population of the S. M. A. is reclassified from rural to urban in 1950 as a result of recognizing the urban fringe as urban. This is considerably greater than the average percentages for the size class and the region.

As a consequence of having so many large suburban cities and such a large urban fringe, only 8.5 percent of the total S. M. A. population of Los Angeles lives outside the urbanized area. This is less than one-half the average for the region, but about average for the size class.

Other data for the area

By following the same method used above for total growth and growth within the S. M. A., comparisons can be made for density within the urbanized area. For its size, the Los Angeles urbanized area is of extraordinarily low density. Whereas the average density for urbanized areas of one million or more is 7,254 (table 28) the density for Los Angeles is 4,587 (appendix table 5) or only about two-thirds as much. The difference is due in part to the comparatively low density of Los Angeles city, for the Los Angeles fringe has a higher population per square mile than its central city.

The analysis of individual S. M. A.'s suggested above makes use only of data contained in this report. Of necessity, these statistics have dealt with only the broad aspects of

S. M. A.'s and urbanized areas. If the investigator wishes to break down the S. M. A. and the urbanized area into minor civil divisions he may do so by consulting the "Number of Inhabitants" volumes of the United States census. The counties which comprise each S. M. A. may be determined by consulting *1950 Census of Population, Preliminary Counts*, Series PC-9, No. 96, "Population of Standard Metropolitan

Areas: April 1, 1950."² The county tables of the decennial census returns can then be used to provide the more detailed data desired.

None of the above comparisons has made allowance for annexations or boundary changes. Such changes are listed in these detailed census tabulations.

² 1950 Census of Population Advance Reports, dated November 24, 1952.

Appendix Table 1. - Population and percent of increase in population of standard metropolitan areas, by decades: 1900-1950

Standard metropolitan area	Population						Percent increase					
	1950	1940	1930	1920	1910	1900	1940-1950	1930-1940	1920-1930	1910-1920	1900-1910	1900-1950
Akron, Ohio	410,032	339,405	344,131	286,065	108,253	71,715	20.8	-1.4	20.3	164.3	50.9	471.8
Central city	274,605	244,791	255,040	208,135	69,067	42,728	12.2	-4.0	22.4	201.8	61.6	542.7
Ring	135,427	94,614	89,091	77,630	39,186	28,987	43.1	6.2	14.8	98.1	35.2	367.2
Urban	62,836	48,026	43,731	41,694	13,430	7,540	30.8	9.8	4.9	210.4	78.1	733.4
Rural	72,591	46,588	45,360	35,936	25,756	21,447	55.8	2.7	26.2	39.5	20.1	238.5
Albany-Schenectady-Troy, N.Y.	514,490	465,443	456,755	408,598	384,177	334,120	10.5	1.9	11.8	6.4	15.0	54.0
Central cities	239,091	288,430	295,867	274,065	249,892	186,484	3.7	-2.5	8.0	9.7	34.0	60.4
Albany	134,995	130,577	127,412	113,344	100,253	94,151	4.4	2.5	12.1	13.1	6.5	43.3
Schenectady	91,785	87,949	95,692	88,723	70,826	31,682	4.8	-0.5	7.9	21.8	129.9	189.7
Troy	72,311	70,304	72,763	71,996	76,813	60,651	2.9	-3.4	1.1	-6.3	26.6	39.2
Ring	215,399	177,213	160,888	134,535	134,285	117,636	21.5	10.1	19.9	0.2	-9.0	15.9
Urban	63,450	65,054	67,055	63,548	63,720	71,237	-2.5	-3.0	5.5	-0.3	-10.6	-10.9
Rural	151,949	112,149	93,833	70,987	70,565	76,399	35.5	19.5	32.2	0.6	-7.6	98.9
Albuquerque, N.Mex.	145,673	69,391	45,430	29,855	23,606	28,630	109.9	52.7	52.2	26.5	-17.5	408.8
Central city	96,815	35,449	26,570	15,157	11,020	6,238	173.1	33.4	75.3	37.5	76.7	1452.0
Ring	48,858	33,942	18,860	12,586	12,586	22,392	43.9	80.0	28.3	16.8	-43.8	118.2
Urban	8,858	3,942	1,860	1,698	1,698	2,946	...	...	...	...	...	...
Rural	48,858	33,942	18,860	14,698	12,586	19,446	43.9	80.0	28.3	16.8	-35.3	151.2
Allentown-Bethlehem-Easton, Pa.	437,824	396,673	391,516	246,664	289,686	231,361	10.4	1.3	12.9	19.7	25.2	89.2
Central cities	208,728	188,983	184,923	157,673	93,273	67,947	10.4	2.2	17.3	64.0	37.3	207.2
Allentown	106,756	96,904	92,563	73,502	51,913	35,416	10.2	4.7	25.9	14.6	46.6	201.4
Bethlehem	66,340	58,490	57,892	50,358	12,837	7,293	13.4	1.0	15.0	292.3	76.0	809.6
Easton	35,632	33,589	34,468	33,813	28,523	25,238	6.1	-2.6	1.9	18.5	13.0	41.2
Ring	229,096	207,690	206,593	188,991	196,413	163,414	10.3	0.5	9.3	-3.8	20.2	40.2
Urban	94,424	89,583	90,248	76,732	78,076	44,944	5.4	-0.7	17.6	-1.7	73.6	110.0
Rural	134,672	118,107	116,345	112,259	118,337	118,450	14.0	1.5	3.6	-5.1	-0.1	13.7
Altoona, Pa.	139,544	140,358	139,840	128,334	108,858	85,099	-0.6	0.4	9.0	17.9	27.9	63.9
Central city	77,177	80,214	82,054	60,351	52,127	38,973	-3.8	-2.2	36.0	15.7	33.8	98.0
Ring	62,337	60,144	57,786	60,003	56,731	46,186	5.6	4.1	-15.0	19.9	23.0	35.1
Urban	20,027	20,251	20,295	23,444	8,845	4,845	-1.1	-0.2	-13.4	44.8	83.1	126.4
Rural	42,310	39,893	37,491	44,599	40,536	37,281	6.1	6.4	-15.9	9.9	8.7	13.5
Amarillo, Tex.	87,140	61,450	53,151	20,385	15,736	2,783	41.8	15.6	160.7	29.5	465.4	3031.2
Central city	74,246	51,686	43,132	15,494	9,957	...	43.6	19.8	178.4	55.6	...	...
Ring	12,894	9,764	10,019	4,891	5,779	2,783	32.1	-2.6	104.8	-15.4	107.6	363.3
Urban	4,364	2,622	2,821	...	...	...	66.4	-7.1	...	...	...	...
Rural	8,530	7,142	7,198	4,891	5,779	2,783	19.4	-0.8	47.2	-15.4	107.6	206.5
Asheville, N.C.	124,403	108,755	97,937	64,148	49,798	44,288	14.4	11.0	52.7	28.8	12.4	180.9
Central city	53,000	51,310	50,193	28,504	18,762	14,694	3.3	2.2	76.1	51.9	27.7	260.7
Ring	71,403	47,444	35,444	35,740	31,036	29,594	24.3	20.3	33.9	14.8	4.9	141.3
Urban	...	...	...	...	...	...	...	...	...	...	...	...
Rural	71,403	57,445	47,444	35,444	31,036	29,594	24.3	20.3	33.9	14.8	4.9	141.3
Atlanta, Ga.	671,797	518,100	440,906	325,688	252,124	179,420	29.7	17.5	35.4	29.2	40.5	274.4
Central city	331,314	302,288	270,366	200,616	154,839	89,872	9.6	11.8	34.8	29.6	72.3	268.6
Ring	340,483	215,812	170,540	125,072	97,285	89,548	57.8	26.5	36.4	28.6	8.6	280.2
Urban	114,658	62,720	40,971	24,137	9,631	4,446	82.8	53.1	69.7	150.6	116.6	1478.9
Rural	225,825	153,092	129,569	100,935	87,654	85,102	47.5	18.2	28.4	15.2	3.0	165.4
Atlantic City, N.J.	132,399	124,066	124,823	83,914	71,894	46,402	6.7	-0.6	48.8	16.7	54.9	185.3
Central city	61,657	64,094	66,198	50,707	46,150	27,838	-3.8	-3.2	30.6	9.9	65.8	121.5
Ring	70,742	59,972	58,625	33,207	25,744	18,564	18.0	2.3	76.5	29.0	38.7	281.1
Urban	43,198	36,326	35,105	14,926	9,478	3,481	18.9	3.5	135.2	57.5	172.3	1414.0
Rural	27,544	23,646	23,520	18,281	16,266	15,083	16.5	0.5	28.7	12.4	7.8	82.6
Augusta, Ga.	162,013	131,779	120,393	109,266	100,735	92,767	22.9	9.4	10.2	8.5	8.6	74.6
Central city	71,508	65,919	60,312	52,548	41,040	39,441	8.5	9.2	14.8	28.0	44.1	81.3
Ring	90,505	65,860	60,051	56,718	59,695	53,326	37.4	9.7	5.9	-5.0	11.9	69.7
Urban	10,742	8,797	6,033	4,103	8,272	6,699	22.1	45.8	47.0	-50.4	24.2	61.3
Rural	79,763	57,063	54,018	52,615	51,463	46,667	39.8	5.6	2.7	2.3	10.2	70.9
Austin, Texas	160,980	111,053	77,777	57,616	55,620	47,386	45.0	42.8	35.0	3.6	17.4	239.7
Central city	132,499	87,930	53,120	34,876	29,860	22,258	50.6	65.5	52.3	16.8	34.2	495.4
Ring	28,521	23,123	24,657	22,740	25,760	25,128	23.3	-6.2	8.4	-11.7	2.5	13.5
Urban	...	...	...	...	...	...	...	...	...	...	...	...
Rural	28,521	23,123	24,657	22,740	25,760	25,128	23.3	-6.2	8.4	-11.7	2.5	13.5
Baltimore, Md.	1,337,373	1,083,300	984,606	852,051	720,387	639,332	23.5	10.0	15.6	18.3	12.7	109.2
Central city	949,708	804,874	733,826	584,485	508,957	439,937	10.5	6.7	9.7	31.4	9.7	86.6
Ring	387,665	224,200	179,732	118,225	161,902	130,375	72.9	24.7	52.0	-27.0	24.2	197.3
Urban	69,407	41,871	12,531	11,214	8,609	8,525	65.8	234.1	11.7	36.2	1.0	744.2
Rural	318,258	182,329	167,201	107,011	153,293	121,850	74.6	9.0	56.2	-30.2	25.8	161.2
Baton Rouge, La.	158,236	88,415	68,208	44,513	34,580	31,153	79.0	29.6	53.2	28.7	11.0	407.9
Central city	125,689	34,719	30,729	21,782	14,897	11,269	261.8	13.0	44.1	46.2	1014.8	...
Ring	32,607	53,696	37,479	22,731	19,683	19,884	-39.3	43.3	64.9	15.5	-1.0	64.0
Urban	...	...	...	...	...	...	...	...	...	...	...	...
Rural	32,607	53,696	37,479	22,731	19,683	19,884	-39.3	43.3	64.9	15.5	-1.0	64.0
Bay City, Mich.	88,461	88,461	69,474	69,548	68,238	62,378	18.0	7.9	-0.1	1.9	9.4	41.8
Central city	52,523	47,955	47,554	47,554	45,166	27,628	9.5	1.3	-0.4	5.3	63.5	90.1
Ring	35,938	27,025	22,119	21,994	23,072	34,750	35.0	22.2	0.6	-44.7	-33.6	3.4
Urban	3,167	...	...	...	...	13,119	...	...	...	...	...	-75.9
Rural	32,771	27,025	22,119	21,994	23,072	21,631	21.3	22.2	0.6	-44.7	6.7	51.5

Appendix Table 1. - Population and percent of increase in population of standard metropolitan areas, by decades: 1900-1950 - Continued

Standard metropolitan area	Population						Percent increase					
	1950	1940	1930	1920	1910	1900	1940-1950	1930-1940	1920-1930	1910-1920	1900-1910	1900-1950
Beaumont-Port Arthur, Tex.	195,083	145,329	133,391	73,120	38,182	14,239	34.2	8.9	82.4	91.5	168.2	1270.1
Central cities	151,544	105,201	108,634	62,673	28,303	9,427	44.1	-3.2	73.3	121.4	200.2	1507.6
Beaumont	94,014	59,061	57,732	40,422	20,640	9,427	39.2	2.3	42.8	95.8	118.9	897.3
Port Arthur	57,530	46,440	50,902	22,251	7,663	...	24.7	-9.4	128.8	190.4	...	...
Ring	43,539	40,128	24,757	10,447	9,879	4,812	8.5	62.1	137.0	5.7	105.3	804.8
Urban	12,344	...	...	...	...	...	...	...	...	...	...	...
Rural	31,195	40,128	24,757	10,447	9,879	4,812	-22.3	62.1	137.0	5.7	105.3	804.8
Binghamton, N.Y.	184,698	165,749	147,022	113,610	78,809	69,149	11.4	12.7	29.4	44.2	14.0	167.1
Central city	80,674	78,309	76,662	66,800	48,443	39,647	3.0	2.1	14.8	37.9	22.2	105.5
Ring	104,024	87,440	70,360	46,810	30,366	29,502	19.0	24.3	50.3	54.2	2.9	252.6
Urban	39,299	35,741	29,798	21,390	3,775	3,111	10.0	19.9	39.3	466.6	21.3	1165.2
Rural	64,725	51,699	40,562	25,420	26,591	26,591	25.2	27.5	59.6	-44.4	0.8	145.2
Birmingham, Ala.	558,928	459,930	431,493	310,054	226,476	140,420	21.5	6.6	39.2	36.9	61.3	298.0
Central city	326,037	267,583	259,678	178,806	132,685	38,415	21.8	3.0	45.2	34.8	245.4	748.7
Ring	232,891	192,347	171,815	131,248	93,791	102,005	21.1	12.0	30.9	39.9	-8.1	128.3
Urban	76,200	51,630	47,753	27,342	10,864	15,751	47.6	8.1	74.6	151.7	-31.0	383.8
Rural	156,691	140,717	124,062	103,906	82,927	86,254	11.4	13.4	19.4	25.3	-3.9	81.7
Boston, Lawrence-Lowell, Mass.	2,875,876	2,656,131	2,611,926	2,315,111	2,025,286	1,685,682	8.3	1.7	12.8	14.3	20.1	70.6
Central cities	979,229	956,528	966,490	955,089	862,771	718,240	2.4	-1.0	1.2	10.7	20.1	36.3
Boston	801,444	770,816	781,188	748,060	670,585	560,892	4.0	-1.3	4.4	11.6	19.6	42.9
Lawrence	80,536	84,223	85,068	94,270	85,892	62,539	-4.5	-0.9	-9.8	9.8	37.3	28.7
Lowell	97,249	101,269	100,234	112,759	106,294	94,969	-4.1	1.2	-11.1	6.1	11.9	2.4
Ring	1,896,647	1,699,603	1,645,436	1,360,022	1,162,515	967,262	11.6	3.3	21.0	17.0	20.2	96.1
Urban	1,700,197	1,546,344	1,510,490	1,249,042	1,092,801	844,826	9.9	2.4	20.9	18.7	24.5	101.2
Rural	196,450	153,259	134,946	110,980	110,314	122,436	26.2	13.6	21.6	0.6	-9.9	60.4
Bridgeport-Stamford-Norwalk, Conn.	504,342	418,384	386,702	320,936	245,322	184,203	20.5	8.2	20.5	30.8	33.2	173.8
Central cities	282,462	234,908	229,081	206,394	134,146	93,118	20.2	2.5	11.0	53.9	44.1	203.3
Bridgeport	158,709	147,121	146,716	143,555	102,054	70,996	7.9	0.3	2.2	40.7	43.7	123.5
Stamford	74,293	47,938	46,346	35,096	25,138	15,997	55.0	3.4	32.1	39.6	57.1	364.4
Norwalk	49,440	39,849	36,019	27,743	6,934	6,125	24.1	10.6	29.8	299.0	13.5	707.5
Ring	221,880	183,476	157,621	114,542	111,176	91,085	20.9	16.4	37.6	3.0	22.1	143.6
Urban	68,189	55,890	57,567	34,357	40,936	28,526	22.0	-2.9	67.6	-16.1	43.5	139.0
Rural	153,691	127,586	100,054	80,185	70,240	62,559	20.5	27.5	24.8	14.2	12.3	145.7
Brookton, Mass.	189,468	168,824	162,311	156,968	144,337	113,985	12.2	4.0	3.4	8.8	26.6	66.2
Central city	62,860	62,343	63,737	66,254	56,878	40,063	0.8	-2.3	-3.7	16.5	42.0	56.9
Ring	126,608	106,481	98,574	90,714	87,459	73,922	18.9	8.1	8.6	3.7	18.3	71.3
Urban	68,474	60,591	58,396	50,018	52,683	43,313	13.0	3.8	4.2	6.3	21.6	58.1
Rural	58,134	45,890	40,118	34,696	34,776	30,609	26.7	14.4	15.6	-0.2	13.6	89.9
Buffalo, N.Y.	1,089,230	958,487	911,737	753,393	621,021	508,647	13.6	5.1	21.0	21.3	22.1	114.1
Central city	580,135	575,901	573,076	506,775	423,715	352,387	0.7	0.5	13.1	19.6	20.2	64.6
Ring	509,098	382,586	338,661	246,618	197,306	156,260	33.1	13.0	37.3	25.0	26.3	225.8
Urban	248,723	213,629	203,968	162,146	94,275	59,657	16.4	4.7	43.5	50.8	58.0	316.9
Rural	260,375	168,957	134,693	104,472	103,031	96,603	34.1	25.4	28.9	1.4	6.7	169.5
Canton, Ohio	283,194	234,887	221,784	177,218	122,987	94,767	20.6	5.9	25.1	44.1	29.8	198.9
Central city	116,912	104,401	104,906	87,051	50,217	30,667	7.9	3.3	20.5	73.4	63.7	281.2
Ring	166,282	126,486	116,878	90,127	72,770	64,080	31.5	8.2	29.7	23.9	13.6	159.5
Urban	65,282	56,979	56,979	39,031	28,961	20,918	14.6	0.8	44.9	34.8	38.5	212.1
Rural	101,000	69,507	60,336	51,096	43,808	43,162	45.3	15.2	18.1	16.6	1.5	134.0
Cedar Rapids, Iowa	104,274	89,142	82,336	74,004	60,720	55,392	17.0	8.3	11.3	21.9	9.6	88.2
Central city	72,296	62,120	56,097	45,566	32,811	25,656	16.4	10.7	23.1	38.9	27.9	181.8
Ring	31,978	27,022	26,239	28,438	27,909	29,736	18.3	3.0	-7.7	1.9	-6.1	7.5
Urban	5,916	4,721	4,348	4,138	4,400	4,102	25.3	8.6	5.1	-6.0	7.3	44.2
Rural	26,062	22,301	21,891	24,300	23,509	25,634	16.9	1.9	-9.9	3.4	-8.3	1.7
Charleston, S.C.	164,856	121,105	101,050	108,450	88,594	88,006	36.1	19.8	-6.8	22.4	0.7	87.3
Central city	70,174	71,275	62,265	67,957	58,833	55,807	-1.5	14.5	-8.4	15.5	5.4	25.7
Ring	94,682	49,830	38,785	40,493	29,761	32,199	90.0	28.5	-4.2	36.1	-7.6	194.1
Urban	...	...	...	...	...	...	...	...	...	...	...	...
Rural	94,682	49,830	38,785	40,493	29,761	32,199	90.0	28.5	-4.2	36.1	-7.6	194.1
Charleston, W.Va.	322,072	276,247	229,717	180,027	133,360	86,683	16.6	20.3	27.6	35.0	53.8	271.6
Central city	73,501	67,914	60,408	39,608	22,996	11,099	8.2	12.4	52.5	72.2	107.2	562.2
Ring	248,571	208,333	169,309	140,419	110,364	75,584	19.3	23.0	20.6	27.2	46.0	228.9
Urban	52,440	27,646	16,253	6,475	...	...	89.7	70.1	151.0	...	...	...
Rural	196,131	180,687	153,056	133,944	110,364	75,584	8.5	18.1	14.3	21.4	46.0	159.5
Charlotte, N.C.	197,052	151,826	127,971	80,695	67,031	55,268	29.8	18.6	58.6	20.4	21.3	256.5
Central city	134,042	100,899	82,675	46,358	34,014	18,091	32.8	22.0	78.4	36.2	88.0	640.9
Ring	63,010	50,927	45,296	34,357	33,017	37,177	23.7	12.4	31.8	44.1	-11.2	69.5
Urban	...	...	...	...	...	...	...	...	...	...	...	...
Rural	63,010	50,927	45,296	34,357	33,017	37,177	23.7	12.4	31.8	44.1	-11.2	69.5
Chattanooga, Tenn.	246,453	211,502	185,703	139,324	113,169	82,763	16.5	13.9	33.3	23.1	36.7	197.8
Central city	131,041	128,163	119,798	57,895	44,604	30,154	2.2	7.0	106.9	29.8	47.9	324.6
Ring	115,412	83,339	65,905	81,429	68,565	52,609	38.5	26.5	-19.1	18.8	30.3	119.4
Urban	18,421	9,986	6,041	11,630	...	...	84.5	65.3	-48.1	...	...	...
Rural	96,991	73,353	59,864	69,799	68,565	52,609	32.2	-22.5	-14.2	1.8	30.3	84.4
Chicago, Ill.	5,495,364	4,825,227	4,675,877	3,521,789	2,752,820	2,092,883	13.9	3.2	32.8	27.9	31.5	162.6
Central city	3,620,962	3,396,808	3,376,438	2,701,705	2,185,283	1,698,575	6.6	0.6	25.0	23.6	28.7	113.2
Ring	1,874,402	1,428,419	1,299,439	820,084	567,537	394,308	31.2	9.9	58.5	44.5	43.9	375.4
Urban	1,430,137	1,124,573	1,048,905	589,353	347,712	195,517	27.2	7.2	78.0	69.5	77.5	630.0
Rural	444,265	304,146	250,534	230,731	219,825	198,791	46.1	21.4	8.6	5.0	10.8	123.9

Appendix Table 1.-Population and percent of increase in population of standard metropolitan areas, by decades: 1900-1950--Continued

Standard metropolitan area	Population						Percent increase'					
	1950	1940	1930	1920	1910	1900	1940-1950	1930-1940	1920-1930	1910-1920	1900-1910	1900-1950
Cincinnati, Ohio	904,402	787,044	756,281	628,999	590,456	527,293	14.9	4.1	20.2	6.5	12.0	71.5
Central city	503,998	455,610	451,160	401,247	363,591	325,902	10.6	1.0	12.4	10.4	11.6	54.6
Ring	400,404	331,434	305,121	227,752	226,865	201,391	20.8	8.6	34.0	0.4	12.6	98.8
Urban	262,795	219,029	214,064	158,997	144,072	110,875	20.0	2.3	34.6	9.6	30.8	137.0
Rural	137,609	112,405	91,057	68,755	81,793	90,516	22.4	23.4	32.4	-15.9	-9.6	52.0
Cleveland, Ohio	1,465,511	1,267,270	1,243,129	972,162	660,352	460,800	15.6	1.9	27.9	47.2	43.3	218.0
Central city	914,808	878,336	900,429	796,841	560,665	381,768	4.2	-2.5	13.0	42.1	46.9	139.6
Ring	550,703	368,934	346,700	175,321	99,689	79,032	44.6	13.5	95.5	75.9	26.1	596.8
Urban	463,547	329,436	285,619	121,466	44,417	28,782	46.8	15.3	135.1	173.5	34.3	1580.0
Rural	67,156	39,498	57,081	53,855	55,272	50,250	12.9	4.2	6.0	-2.6	10.0	33.6
Columbia, S. C.	142,565	104,813	87,667	78,122	55,443	45,589	36.0	19.6	12.2	44.7	21.0	212.7
Central city	86,914	62,396	51,581	37,524	26,319	21,178	39.3	21.0	37.5	42.6	24.7	311.8
Ring	55,651	42,417	36,086	40,598	28,824	24,481	31.1	17.6	-11.1	40.8	17.7	127.3
Urban	12,478	3,508	2,915	2,566	...	...	255.7	20.3	13.6	...	...	...
Rural	43,173	38,939	33,171	38,032	28,824	24,481	10.9	17.4	-12.8	31.9	17.7	76.4
Columbus, Ga.	170,544	126,407	93,829	76,909	67,750	62,709	34.9	34.7	22.0	13.5	8.0	172.0
Central city	79,611	53,280	43,131	31,125	20,554	17,614	49.4	23.5	38.6	51.4	16.7	352.0
Ring	90,930	73,127	50,698	45,784	47,196	45,095	24.3	44.2	10.7	-3.0	4.6	101.6
Urban	23,305	15,351	7,263	4,942	4,214	3,840	51.8	111.4	47.0	17.3	9.7	506.9
Rural	67,625	57,776	43,435	40,842	42,982	41,255	17.0	33.0	6.3	-5.0	4.2	63.9
Columbus, Ohio	503,410	388,712	361,055	283,951	221,567	164,460	29.5	7.7	27.2	28.2	34.7	206.1
Central city	375,901	306,087	290,564	237,051	181,511	125,560	22.8	5.3	22.6	30.6	44.6	199.4
Ring	127,509	82,625	70,491	46,920	40,056	38,900	54.3	17.2	50.2	17.1	3.0	227.8
Urban	38,050	24,181	19,692	...	...	...	57.4	22.8	...	...	...	...
Rural	89,459	58,444	50,799	46,920	40,056	38,900	53.1	15.0	8.3	17.1	3.0	130.0
Corpus Christi, Texas	165,471	92,661	51,779	22,807	21,955	10,439	78.6	79.0	127.0	3.9	110.3	1485.1
Central city	106,287	57,301	27,441	10,522	8,222	4,703	89.0	106.6	163.6	28.0	74.8	2202.5
Ring	57,184	35,360	24,038	12,285	13,733	5,736	61.7	47.1	95.7	-10.5	139.4	896.9
Urban	10,009	6,780	4,183	...	...	...	47.6	62.1	...	...	...	...
Rural	47,175	28,580	19,855	12,285	13,733	5,736	65.1	43.9	61.6	-10.5	139.4	722.4
Dallas, Texas	614,799	398,564	325,691	210,551	135,748	82,726	54.3	22.4	54.7	55.1	64.1	643.2
Central city	434,462	284,734	260,475	159,976	92,104	62,658	47.4	13.2	63.8	72.6	116.0	919.0
Ring	180,337	103,830	65,216	51,575	43,644	40,088	73.7	59.2	26.4	18.2	8.9	349.9
Urban	66,098	24,746	12,622	...	...	3,630	167.1	96.0	...	...	...	1722.9
Rural	114,239	79,084	52,594	51,575	43,644	36,458	44.5	50.4	2.0	18.2	19.7	213.3
Davenport, Ia. - Rock Island-Moline, Ill.	234,256	198,071	175,523	166,249	130,404	106,807	18.3	12.8	5.6	27.5	22.1	119.3
Central city	160,687	143,422	130,940	122,638	91,562	71,995	12.0	9.5	6.8	33.9	27.2	123.1
Davenport, Ia.	74,549	66,039	60,751	56,727	43,028	35,254	12.9	8.7	7.1	31.8	22.1	111.5
Rock Island, Ill.	48,710	42,775	37,953	35,177	19,493	15,933	13.9	12.7	7.9	44.6	24.8	149.9
Moline, Ill.	37,397	34,608	32,236	30,734	24,199	17,248	8.1	7.4	4.9	27.0	40.3	116.8
Ring	73,600	54,649	44,583	43,611	38,842	34,812	34.7	22.6	2.2	12.3	11.6	111.4
Urban	22,100	18,492	15,525	11,216	2,665	...	19.5	19.1	38.4	320.9	...	...
Rural	51,500	36,157	29,058	32,395	36,177	34,812	42.4	24.4	-10.3	-10.5	3.9	47.9
Dayton, Ohio	457,332	331,343	306,740	240,753	193,496	161,759	38.0	8.0	27.4	24.4	19.6	182.7
Central city	243,872	210,718	200,982	152,559	116,577	85,333	15.7	4.8	31.7	30.9	36.6	185.8
Ring	213,461	120,625	105,758	88,194	76,919	76,426	77.0	14.1	19.9	14.6	0.6	179.3
Urban	42,516	26,378	22,519	13,493	12,977	12,637	61.2	17.1	66.9	4.0	2.7	236.4
Rural	170,945	94,247	83,239	74,701	63,942	63,789	81.4	13.2	11.4	16.8	0.2	168.0
Decatur, Ill.	96,853	84,693	81,731	65,175	54,186	44,003	16.7	3.6	25.4	20.3	23.1	124.6
Central city	66,269	59,305	57,510	43,818	31,140	20,754	11.7	3.1	31.2	40.7	50.0	219.3
Ring	32,584	25,388	24,221	21,357	23,046	23,249	28.3	4.8	13.4	-7.3	-0.9	40.2
Urban	...	...	...	...	...	...	...	...	...	...	...	...
Rural	32,584	25,388	24,221	21,357	23,046	23,249	28.3	4.8	13.4	-7.3	-0.9	40.2
Denver, Colo.	563,768	407,768	352,563	299,087	246,767	162,323	38.3	15.6	17.9	21.2	52.0	247.4
Central city	415,786	322,412	287,861	256,491	213,381	133,859	29.0	12.0	12.2	20.2	59.4	210.6
Ring	148,046	85,356	64,702	42,596	33,386	28,464	73.4	31.9	51.9	27.6	17.3	420.1
Urban	43,822	20,321	11,374	7,071	2,983	...	115.6	78.7	60.8	137.0	...	...
Rural	104,224	65,035	53,328	35,525	30,403	28,464	60.2	12.0	50.1	16.8	6.8	266.2
Des Moines, Ia.	226,010	195,835	172,837	154,029	110,438	82,624	15.4	13.3	12.2	39.5	33.7	173.5
Central city	177,965	159,819	142,559	126,468	86,368	62,139	11.4	12.1	12.7	46.4	39.0	186.4
Ring	48,045	36,016	30,278	27,561	24,070	20,485	33.4	19.0	9.8	14.5	17.5	134.5
Urban	5,615	4,252	4,280	3,631	2,573	...	32.0	-0.7	17.9	41.1	...	...
Rural	42,430	31,764	25,998	23,930	21,497	20,485	33.6	22.2	8.6	11.3	4.9	107.1
Detroit, Mich.	3,016,197	2,377,329	2,177,743	1,305,798	613,773	426,829	26.9	9.2	66.7	112.7	43.8	606.6
Central city	1,849,568	1,623,452	1,568,662	993,678	465,766	285,704	13.9	3.5	57.9	113.3	65.0	547.4
Ring	1,166,629	753,877	608,681	319,120	148,007	114,125	54.8	23.8	95.0	110.9	44.9	726.7
Urban	731,279	497,661	442,437	188,983	127,368	26,101	46.9	12.5	134.1	62.3	62.3	2701.7
Rural	435,350	256,216	166,244	123,137	105,639	115,024	69.9	54.1	35.0	16.6	-8.2	278.5
Duluth, Minn.-Superior, Wiso.	252,777	254,036	251,179	256,162	210,696	119,267	-0.5	1.1	-1.9	21.6	76.6	111.9
Central city	139,836	136,201	137,576	138,588	118,850	84,060	2.7	-1.0	-0.7	16.6	41.4	66.4
Duluth, Minn.	40,511	101,065	101,463	98,917	78,466	52,969	3.4	-0.4	2.6	26.1	48.1	97.3
Superior, Wiso.	35,325	35,136	36,113	39,671	40,384	31,091	0.5	-2.7	-9.0	-1.8	29.9	13.6
Ring	112,941	117,835	113,603	117,574	91,846	35,207	-4.2	3.7	-3.4	28.0	160.9	220.8
Urban	49,622	51,497	54,820	56,576	37,397	9,431	-3.6	-6.1	-3.1	50.5	298.6	426.6
Rural	63,318	66,338	58,783	60,998	54,449	25,776	-4.6	12.4	-3.6	12.4	110.5	145.5
Durham, N. C.	101,639	80,244	67,196	42,219	35,276	26,233	26.7	19.4	59.2	19.7	34.5	287.4
Central city	71,311	60,195	52,037	21,719	18,241	6,679	18.5	15.7	139.6	19.1	173.1	967.7
Ring	30,328	20,049	15,139	20,500	17,035	19,554	51.3	32.3	-26.1	20.3	-12.9	55.1
Urban	...	...	...	...	...	...	...	...	...	...	...	...
Rural	30,328	20,049	15,139	20,500	17,035	19,554	51.3	32.3	-26.1	20.3	-12.9	55.1

Appendix Table 1.—Population and percent of increase in population of standard metropolitan areas, by decades: 1900-1950 - Continued

Standard metropolitan area	Population						Percent increase					
	1950	1940	1930	1920	1910	1900	1940-1950	1930-1940	1920-1930	1910-1920	1900-1910	1900-1950
El Paso, Texas	194,968	131,067	131,397	101,877	52,599	24,886	48.8	-0.4	29.2	93.7	111.4	683.4
Central city	130,485	96,810	102,421	77,560	39,279	15,906	34.8	-5.5	32.1	97.5	146.9	720.4
Ring	44,483	34,257	29,176	24,317	13,320	8,980	88.2	17.4	20.0	82.6	48.3	618.1
Urban	***	***	***	***	***	***	***	***	***	***	***	***
Rural	44,483	34,257	29,176	24,317	13,320	8,980	88.2	17.4	20.0	82.6	48.3	618.1
Erie, Pa.	219,388	180,889	175,277	153,536	115,517	98,473	21.3	3.2	14.2	32.9	17.3	122.8
Central city	130,803	116,955	115,967	93,372	66,525	52,733	11.8	0.9	24.2	40.4	26.2	148.0
Ring	88,585	63,934	59,310	60,164	48,992	45,740	38.6	7.8	-1.4	22.8	7.1	93.7
Urban	19,480	17,400	17,464	14,559	12,347	8,473	12.0	-0.4	20.0	17.9	45.7	129.9
Rural	69,105	46,534	41,846	45,605	36,445	37,267	48.5	11.2	-8.2	24.5	-1.7	85.4
Evansville, Ind.	160,422	130,783	113,320	92,293	77,438	71,769	22.7	15.4	22.8	19.2	7.9	123.5
Central city	128,636	97,062	102,264	85,264	69,647	59,007	32.5	-5.1	19.9	22.4	18.0	118.0
Ring	31,786	33,721	11,071	7,029	7,791	12,762	-5.7	204.6	57.5	-9.8	-39.0	149.1
Urban	***	***	***	***	***	***	***	***	***	***	***	***
Rural	31,786	33,721	11,071	7,029	7,791	12,762	-5.7	204.6	57.5	-9.8	-39.0	149.1
Fall River-New Bedford, Mass.	381,569	364,637	364,590	359,005	318,573	252,029	4.6	...	1.6	12.7	26.4	51.4
Central cities	221,132	225,769	227,871	241,702	215,947	167,305	-2.0	-0.9	-5.7	11.9	29.1	32.2
Fall River	115,428	115,428	120,574	120,574	119,295	104,665	-3.0	0.1	-4.3	1.0	13.8	6.8
New Bedford	109,189	117,341	112,297	121,217	96,652	62,442	-2.0	-2.0	-7.1	25.4	94.8	74.9
Ring	160,447	138,868	136,719	117,303	102,626	84,724	15.5	1.6	16.6	14.3	38.6	12.1
Urban	115,693	102,177	100,812	86,145	74,719	53,630	13.2	1.4	17.0	15.3	39.3	115.7
Rural	44,754	36,691	35,907	31,158	27,907	31,094	21.9	2.2	15.2	11.6	151.6	-10.2
Flint, Mich.	270,963	227,944	211,641	125,668	64,555	41,804	18.9	7.7	68.4	94.7	54.4	548.2
Central city	163,143	151,513	156,492	91,599	38,550	13,103	7.7	-3.2	70.8	137.6	194.2	1145.1
Ring	107,820	76,401	55,149	34,069	26,005	28,701	41.1	38.5	61.9	31.0	-9.4	275.7
Urban	7,116	3,377	3,171	2,507	...	...	110.7	6.5	26.5	...	...	...
Rural	100,704	73,024	51,978	31,562	26,005	28,701	37.9	40.5	64.7	21.4	-9.4	250.9
Fort Wayne, Ind.	183,722	155,084	146,743	114,303	93,386	77,270	18.5	5.7	28.4	22.4	20.9	137.8
Central city	133,607	118,410	114,946	86,549	65,933	45,115	12.8	3.0	32.8	35.4	44.7	196.1
Ring	50,115	36,674	31,797	27,754	29,453	32,155	36.6	15.3	14.6	-5.8	-8.4	55.9
Urban	50,115	36,674	31,797	27,754	29,453	32,155	36.6	15.3	14.6	-5.8	-8.4	55.9
Rural	...	...	...	...	...	...	...	...	...	...	...	...
Fort Worth, Tex.	361,253	225,521	197,553	152,800	108,572	52,376	60.2	14.2	29.3	40.7	107.3	599.7
Central city	278,778	177,662	163,447	106,432	73,312	26,688	56.9	8.7	53.5	45.2	174.7	944.6
Ring	82,475	47,859	34,106	46,318	35,260	25,688	72.3	40.3	-26.4	31.4	37.3	221.1
Urban	35,306	4,240	3,661	7,369	...	...	732.7	15.8	-50.3	...	...	...
Rural	47,169	43,619	30,445	38,949	35,260	25,688	8.1	43.3	-21.8	10.5	37.3	83.6
Fresno, Calif.	276,515	178,565	144,379	128,779	75,657	37,862	54.9	23.7	12.1	70.2	99.8	630.3
Central city	91,669	60,685	52,513	45,086	24,892	12,470	51.1	15.6	16.5	81.1	99.6	635.1
Ring	184,846	117,880	91,866	83,693	50,765	25,392	56.8	28.3	9.8	44.9	99.9	688.0
Urban	24,804	15,880	11,434	8,670	4,199	...	56.2	38.6	32.1	106.5	...	...
Rural	160,042	102,000	80,445	75,023	46,566	25,392	56.9	26.8	7.2	61.1	83.4	550.3
Gadsden, Ala.	93,892	72,580	63,399	47,275	39,109	27,361	29.4	14.5	34.1	20.9	42.9	243.2
Central city	55,725	36,975	24,042	14,737	10,557	4,282	50.7	53.8	63.1	39.6	146.5	1201.4
Ring	38,167	35,605	39,357	32,538	28,552	23,079	7.2	-9.5	21.0	14.0	23.7	65.4
Urban	7,537	4,885	6,894	8,894	6,826	...	54.3	-62.8	47.6	30.3	...	...
Rural	30,630	30,720	26,228	23,644	21,726	23,079	-0.3	17.1	10.9	8.8	-5.9	32.7
Galveston, Tex.	113,066	81,173	64,401	53,150	44,479	44,116	39.3	26.0	21.2	19.5	0.8	156.3
Central city	66,568	60,862	52,938	44,255	36,981	37,789	9.4	15.0	19.6	19.7	-2.1	76.2
Ring	46,498	20,311	11,463	8,895	7,498	6,327	128.9	77.2	28.9	18.6	18.5	634.9
Urban	16,620	5,748	3,534	2,509	...	...	189.1	62.6	40.9	...	...	...
Rural	29,878	14,565	7,929	6,386	7,498	6,327	105.2	83.7	24.2	-14.8	-18.5	372.2
Grand Rapids, Mich.	288,292	246,338	240,511	183,041	139,145	129,744	17.0	2.4	15.0	22.7	122.3	...
Central city	176,515	164,292	168,592	137,634	112,571	87,565	7.4	-2.6	22.5	22.3	28.6	101.6
Ring	111,777	82,046	71,919	45,407	46,574	42,149	36.2	14.1	58.4	-2.5	10.5	165.2
Urban	6,403	4,899	4,024	...	...	...	30.7	21.7	...	...	...	...
Rural	105,374	77,147	67,895	45,407	46,574	42,149	36.6	13.6	49.5	-2.5	10.5	150.0
Green Bay, Wis.	98,314	83,109	70,249	61,889	54,098	46,359	18.3	18.3	13.5	14.4	16.7	112.1
Central city	52,735	46,235	37,445	31,017	25,236	18,684	14.1	23.6	20.6	22.9	35.1	182.2
Ring	45,579	36,874	32,834	30,872	28,862	27,675	23.6	12.3	6.4	7.0	4.3	64.7
Urban	8,146	6,373	5,521	5,165	4,477	4,038	27.8	15.4	6.9	15.4	10.9	101.7
Rural	37,433	30,501	27,313	25,707	24,385	23,637	22.7	11.7	6.2	5.4	3.2	58.4
Greensboro-High Point, N.C.	191,057	153,916	133,010	79,272	60,497	39,074	24.1	15.7	67.8	31.0	54.8	389.0
Central city	114,362	97,814	90,341	34,163	25,420	14,198	16.9	8.3	184.4	34.4	79.0	705.5
Greensboro	74,389	59,319	53,569	19,861	10,035	5,595	25.4	10.7	169.7	25.0	58.4	641.3
High Point	39,973	38,495	36,745	14,302	9,525	4,163	3.8	4.8	156.9	50.2	128.8	860.2
Ring	76,695	56,102	42,696	45,109	35,077	24,876	36.7	31.4	25.3	28.6	44.0	208.3
Urban	...	...	...	...	...	...	...	...	...	...	...	...
Rural	76,695	56,102	42,696	45,109	35,077	24,876	36.7	31.4	25.3	28.6	44.0	208.3
Greenville, S.C.	168,152	136,580	117,009	88,498	68,377	53,490	23.1	16.7	32.2	29.4	27.8	214.4
Central city	59,161	34,734	29,154	23,277	15,741	11,860	67.4	19.1	26.1	46.9	32.7	390.4
Ring	109,991	101,846	87,855	65,221	52,636	41,630	8.0	15.9	34.4	24.2	26.4	144.2
Urban	44,433	2,349	...	...	...	...	88.7	...	...	...	...	...
Rural	105,558	99,497	87,855	65,221	52,636	41,630	6.1	13.3	34.4	24.2	26.4	153.6
Hamilton-Middletown, Ohio	147,203	120,249	114,084	87,025	70,271	56,870	22.4	5.4	31.1	23.8	23.6	158.8
Central city	91,646	81,812	82,168	63,269	48,431	33,129	12.0	-0.4	29.9	30.6	46.2	176.6
Hamilton	57,951	50,592	52,176	39,675	35,279	25,914	14.5	-3.0	31.5	12.5	47.5	142.3
Middletown	33,695	31,220	29,992	23,594	13,152	9,215	7.9	4.1	27.1	79.4	42.7	265.7
Ring	55,557	38,437	31,916	23,756	21,840	23,741	44.5	20.4	34.3	8.8	-8.0	134.0
Urban	48,613	2,756	2,588	...	...	...	152.0	6.5	...	...	...	...
Rural	48,613	35,681	29,328	23,756	21,840	23,741	36.2	21.7	23.5	8.8	-8.0	104.8

Appendix Table 1.—Population and percent of increase in population of standard metropolitan areas, by decades: 1900-1950—Continued

Standard metropolitan area	Population						Percent increase					
	1950	1940	1930	1920	1910	1900	1940-1950	1930-1940	1920-1930	1910-1920	1900-1910	1900-1950
Harrisburg, Pa.	292,244	252,216	233,467	211,694	190,631	164,787	15.9	8.0	10.3	11.0	15.7	77.3
Central city	89,544	83,893	80,339	75,917	64,186	50,167	6.7	4.4	5.8	18.3	27.9	78.5
Ring	202,697	168,323	153,128	135,777	126,445	114,620	20.4	9.9	12.8	7.4	10.3	76.8
Urban	82,978	72,695	68,601	50,367	43,696	40,085	14.1	6.0	36.2	15.3	9.0	107.0
Rural	119,719	95,688	84,527	85,410	82,749	74,535	25.2	13.1	-1.0	3.2	11.0	60.6
Hartford, New Britain,												
Bristol, Conn.	539,661	450,189	421,097	336,027	250,182	195,480	19.9	6.9	25.3	34.3	28.0	176.1
Central cities	287,084	265,119	260,651	217,972	152,358	112,116	8.3	1.7	19.6	43.1	35.9	156.1
Hartford	177,397	166,267	144,072	138,056	98,915	79,850	6.7	1.3	18.9	39.6	23.9	122.2
New Britain	73,726	68,685	68,128	59,316	43,916	25,998	7.3	0.8	14.9	35.1	68.9	183.6
Bristol	35,961	30,167	28,451	20,620	9,527	6,268	19.2	6.0	38.0	116.4	52.0	473.7
Ring	252,577	185,070	160,446	118,055	97,824	83,364	36.5	15.3	35.9	20.7	17.3	203.0
Urban	74,335	57,479	47,191	5,085	3,411	29.3	21.8	828.0	36.9	8.9	2079.3	
Rural	178,242	127,591	113,255	112,970	94,410	79,953	39.7	12.7	0.3	20.0	17.7	182.9
Houston, Texas	806,701	528,961	359,328	186,667	115,693	63,786	52.5	47.2	92.5	61.3	81.4	1144.7
Central city	384,514	292,352	186,276	78,800	44,633	19,153	55.0	31.5	111.4	75.5	76.6	1235.7
Ring	210,538	144,447	66,976	48,391	36,893	19,153	45.8	115.7	38.4	31.2	92.6	999.2
Urban	95,310	26,370	6,660	4,080	6,984	...	261.4	204.5	112.3	-41.6	...	...
Rural	115,228	118,077	58,316	44,311	29,909	19,153	-2.4	102.5	31.6	48.2	56.2	501.6
Huntington, W. Va.												
Ashland, Ky.	245,795	225,668	210,382	160,579	133,698	111,239	8.9	7.3	31.0	20.1	20.2	121.0
Central cities	117,484	108,373	104,646	84,906	39,849	18,723	8.4	3.6	61.2	62.9	112.8	527.5
Huntington, W. Va.	86,353	78,836	75,572	50,177	31,161	11,923	9.5	4.3	50.6	61.0	161.4	684.3
Ashland, Ky.	31,131	29,537	29,074	14,729	8,688	6,800	5.4	1.6	97.4	69.5	27.8	357.8
Ring	128,311	117,295	105,736	95,673	93,849	92,516	9.4	10.9	10.5	1.9	1.4	38.7
Urban	25,403	24,277	16,390	16,667	14,949	14,6	4.6	-4.1	39.2	9.1	11.5	69.9
Rural	102,908	93,018	80,410	77,483	77,182	77,567	10.6	15.7	3.8	0.4	-0.5	32.7
Indianapolis, Ind.	551,777	460,926	422,666	348,061	263,661	197,227	19.7	9.1	21.4	32.0	33.7	179.8
Central city	427,175	386,972	344,161	314,194	235,650	169,164	10.4	6.3	15.9	34.5	38.1	152.5
Ring	124,604	73,954	58,505	33,867	30,011	28,065	68.5	26.4	72.7	12.8	6.9	344.0
Urban	11,183	3,907	3,552	...	...	184.2	10.0	...	...	...	...	...
Rural	113,421	70,047	54,953	33,867	30,011	28,065	61.9	27.5	62.3	12.8	6.9	304.2
Jackson, Mich.	107,925	92,304	72,539	48,371	31,433	18,222	15.9	0.9	27.2	35.8	10.8	123.8
Central city	51,088	49,656	55,187	48,371	31,433	25,180	2.9	-10.0	14.1	53.9	24.8	102.9
Ring	56,837	43,452	37,117	24,165	21,993	23,042	30.8	17.1	53.6	9.9	-4.6	146.7
Urban	...	...	...	...	...	...	...	...	...	...	...	...
Rural	56,837	43,452	37,117	24,165	21,993	23,042	30.8	17.1	53.6	9.9	-4.6	146.7
Jackson, Miss.	142,164	107,273	85,118	57,110	63,726	52,577	32.5	26.0	49.0	-10.4	21.2	170.4
Central city	98,271	62,107	44,282	22,817	21,262	7,816	58.2	28.6	111.6	7.3	172.0	1157.3
Ring	45,893	45,166	36,836	34,293	42,476	44,761	-2.8	22.6	7.4	-19.2	-5.1	-1.9
Urban	...	...	...	...	...	...	...	...	...	...	...	...
Rural	43,893	45,166	36,836	34,293	42,476	44,761	-2.8	22.6	7.4	-19.2	-5.1	-1.9
Jacksonville, Fla.	304,029	210,143	155,503	113,540	75,163	39,733	44.7	35.1	37.0	51.1	89.2	665.2
Central city	204,517	173,065	129,549	91,598	57,699	28,429	18.2	33.6	41.5	58.7	103.0	619.4
Ring	99,512	37,078	25,954	21,982	17,464	11,304	168.4	42.9	18.1	25.9	54.5	780.3
Urban	6,430	3,566	5,997	2,775	...	...	80.3	-46.3	101.7	...	...	...
Rural	93,082	33,512	20,357	19,207	17,464	11,304	177.8	64.6	6.0	10.0	54.5	723.4
Johnstown, Pa.	291,354	298,446	283,910	279,951	233,848	154,298	-2.4	5.1	1.4	19.7	51.6	88.8
Central city	65,232	66,668	66,993	67,327	55,482	35,936	-0.5	-0.5	-0.5	21.3	54.4	76.0
Ring	228,122	231,748	216,917	212,624	178,366	118,362	-1.6	6.8	2.0	19.2	50.7	92.7
Urban	65,295	65,656	60,171	55,799	40,604	11,069	-3.6	9.1	7.8	37.4	266.8	471.8
Rural	164,827	166,112	156,746	156,825	137,762	107,293	-0.8	6.0	-0.1	13.8	28.4	53.6
Kalamazoo, Mich.	126,707	100,085	91,368	71,225	60,427	44,310	26.6	9.5	28.3	17.9	36.4	186.0
Central city	57,704	54,097	54,786	48,487	39,437	24,404	6.7	-1.3	13.0	22.9	61.6	136.5
Ring	69,003	45,988	36,582	22,738	20,990	19,906	50.0	25.7	60.9	8.3	5.4	246.6
Urban	...	...	...	...	...	...	...	...	...	...	...	...
Rural	69,003	45,988	36,582	22,738	20,990	19,906	50.0	25.7	60.9	8.3	5.4	246.6
Kansas City, Mo.	814,357	686,613	665,655	528,833	422,180	305,427	18.6	3.2	25.9	25.3	38.2	166.6
Central city	456,622	399,178	399,746	324,410	248,381	163,752	14.4	-0.1	23.2	30.6	51.7	178.8
Ring	357,735	287,465	265,909	204,423	173,799	141,675	24.4	8.1	30.1	17.6	22.7	152.5
Urban	189,110	152,653	151,444	131,067	108,302	70,991	23.9	0.8	15.6	21.0	52.6	166.4
Rural	168,625	134,812	114,445	73,356	65,497	70,684	25.1	17.8	56.0	12.0	-7.3	138.6
Kenosha, Wis.	75,238	63,505	63,277	51,284	32,929	21,707	18.5	0.4	23.4	55.7	51.7	246.6
Central city	54,368	48,765	50,262	40,472	21,371	11,606	11.5	-3.0	24.2	89.4	84.1	368.4
Ring	20,870	14,740	13,015	10,812	11,558	10,101	41.6	13.3	20.4	-6.5	14.4	106.6
Urban	...	...	...	...	...	...	...	...	...	...	...	...
Rural	20,870	14,740	13,015	10,812	11,558	10,101	41.6	13.3	20.4	-6.5	14.4	106.6
Knoxville, Tenn.	337,105	246,088	209,613	160,024	132,713	111,142	37.0	17.4	31.0	20.6	19.4	203.3
Central city	124,769	111,580	105,802	77,818	36,346	32,637	11.8	5.5	36.0	114.1	11.4	282.3
Ring	212,336	134,508	103,811	82,206	96,367	78,505	57.9	29.6	26.3	-14.7	22.8	170.5
Urban	17,809	10,213	7,097	7,097	5,126	...	31.9	32.2	43.9	38.5	...	...
Rural	194,527	121,007	93,598	75,109	91,241	78,505	60.8	29.3	24.6	-17.7	16.2	170.5
Lancaster, Pa.	234,712	212,504	196,882	173,797	167,029	159,241	10.5	7.9	13.3	4.1	4.9	47.4
Central city	63,774	61,345	59,949	53,150	47,227	41,459	4.0	2.3	12.8	12.5	13.9	53.8
Ring	170,943	151,159	136,933	120,647	119,802	117,782	13.1	10.4	13.5	0.7	1.7	45.1
Urban	42,076	33,587	30,881	24,282	17,233	12,316	25.3	8.8	27.2	40.9	39.9	241.6
Rural	128,867	117,572	106,052	96,365	102,569	105,466	9.6	10.9	10.1	-6.0	-2.7	22.2
Lansing, Mich.	172,941	130,616	116,587	81,554	53,310	39,818	32.4	12.0	43.0	53.0	33.9	334.3
Central city	92,129	78,753	78,397	57,327	31,229	16,485	17.0	0.5	36.8	83.6	89.4	458.9
Ring	80,812	51,863	38,190	24,227	22,081	23,333	55.8	35.8	57.6	9.7	94.6	246.3
Urban	23,839	8,706	6,944	...	...	...	175.8	25.0	...	...	...	...
Rural	56,973	43,157	31,226	24,227	22,081	23,333	32.0	38.2	28.9	9.7	-5.4	144.2

Appendix Table 1.—Population and percent increase in population of standard metropolitan areas, by decades: 1900-1950—Continued

Standard metropolitan areas	Population						Percent increase					
	1950	1940	1930	1920	1910	1900	1940-1950	1930-1940	1920-1930	1910-1920	1900-1910	1900-1950
Laredo, Texas	56,141	45,916	42,128	29,152	22,503	21,851	22.3	9.0	44.5	29.5	3.0	156.9
Central city	51,910	39,274	32,618	22,710	14,855	13,429	32.2	20.4	43.6	52.9	10.6	286.6
Ring	4,231	6,642	9,510	6,442	7,648	8,422	-36.3	-30.2	47.6	-15.8	-9.2	-49.8
Urban	***	***	***	***	***	***	***	***	***	***	***	***
Rural	4,231	6,642	9,510	6,442	7,648	8,422	-36.3	-30.2	47.6	-15.8	-9.2	-49.8
Lawrence, Mass.	Included with Boston, Mass.											
Lexington, Ky.	100,746	78,899	68,543	54,664	47,715	42,071	27.7	15.1	25.4	14.6	13.4	139.5
Central city	55,534	44,304	45,736	41,534	35,099	26,369	12.6	7.8	10.1	18.3	33.1	110.6
Ring	45,212	29,595	22,807	13,130	12,616	15,702	52.8	29.8	73.7	4.1	-19.7	187.9
Urban	***	***	***	***	***	***	***	***	***	***	***	***
Rural	45,212	29,595	22,807	13,130	12,616	15,702	52.8	29.8	73.7	4.1	-19.7	187.9
Lima, Ohio	88,183	75,303	69,119	66,223	56,580	47,976	20.3	5.6	1.8	20.6	17.9	83.8
Central city	50,246	44,711	42,287	41,326	30,508	21,723	12.4	5.7	2.3	35.5	10.4	131.3
Ring	37,937	28,592	27,132	26,897	26,072	26,253	32.7	5.4	0.9	3.2	-0.7	44.5
Urban	3,418	3,086	3,055	3,169	2,556	2,289	10.8	1.0	-3.6	24.0	11.7	49.3
Rural	34,519	25,506	24,077	23,728	23,516	23,964	35.3	5.9	1.5	0.9	-1.9	44.0
Lincoln, Nebr.	119,742	100,585	100,324	85,902	73,793	64,835	19.0	0.3	16.8	16.4	13.8	84.7
Central city	98,884	81,984	75,933	54,948	43,973	40,169	20.6	8.0	38.2	25.0	9.5	146.2
Ring	20,858	18,601	24,391	30,954	29,820	24,666	12.1	-23.7	-21.2	3.8	20.9	-15.4
Urban	***	***	3,699	7,714	5,880	***	***	***	-52.6	31.2	***	***
Rural	20,858	18,601	20,732	23,240	23,940	24,666	12.1	-10.3	-10.8	-2.9	-2.9	-15.4
Little Rock-North Little Rock, Ark.	196,685	156,085	137,727	109,444	86,751	63,179	26.0	13.3	25.8	26.2	37.3	211.3
Central cities	146,310	109,176	101,097	79,190	57,079	38,307	34.0	8.0	27.7	38.7	49.0	261.9
Little Rock	102,213	88,039	81,679	65,142	45,941	38,307	16.1	7.8	25.4	11.8	19.9	184.8
North Little Rock	44,097	21,137	19,418	14,048	11,138	***	108.6	8.9	38.2	26.1	***	***
Ring	50,375	46,909	36,630	30,274	29,672	24,872	7.4	28.1	21.0	2.0	19.3	102.5
Urban	***	***	***	***	***	***	***	***	***	***	***	***
Rural	50,375	46,909	36,630	30,274	29,672	24,872	7.4	28.1	21.0	2.0	19.3	102.5
Lorain-Elyria, Ohio	148,162	112,390	109,206	90,612	76,037	54,857	31.8	2.9	20.5	19.2	38.6	170.1
Central cities	81,509	69,245	70,145	57,769	43,708	24,819	17.7	-1.3	21.4	32.2	76.1	228.4
Lorain	51,202	44,125	44,512	37,897	28,883	16,028	16.0	-0.9	19.4	29.1	80.2	319.5
Elyria	30,307	25,120	25,633	20,474	14,825	8,791	20.6	-2.0	25.2	38.1	68.6	244.8
Ring	66,653	43,145	39,061	32,843	32,329	30,038	54.5	10.5	18.9	1.6	7.6	121.9
Urban	20,711	9,730	7,136	4,236	4,365	4,082	112.9	36.4	68.5	-3.0	6.9	407.4
Rural	45,942	33,415	31,925	28,607	27,964	25,956	37.5	4.7	11.6	2.3	7.7	77.0
Los Angeles, Calif.	4,367,911	2,916,403	2,327,166	997,830	538,567	189,994	49.8	25.3	133.2	85.3	183.5	2199.0
Central city	1,970,358	1,504,277	1,238,048	576,673	319,198	102,479	31.0	21.5	114.7	80.7	211.5	1822.7
Ring	2,397,553	1,412,126	1,089,118	421,157	219,369	87,515	69.8	29.7	158.6	92.0	150.7	2639.6
Urban	1,471,983	945,769	751,660	244,266	106,727	22,633	55.6	25.8	207.7	128.9	371.6	6403.7
Rural	925,570	466,357	337,458	176,891	112,642	64,882	98.5	38.2	90.8	57.0	73.6	1326.5
Louisville, Ky.	576,900	451,473	420,769	346,411	323,473	294,502	27.8	7.3	21.5	7.1	9.8	95.9
Central city	369,129	319,077	307,745	234,891	223,928	204,731	15.7	3.7	31.0	4.9	9.4	80.3
Ring	207,771	132,396	113,024	111,520	99,545	89,771	56.9	17.1	1.3	12.0	10.9	131.4
Urban	54,721	36,907	37,765	40,267	33,784	31,402	48.3	-2.3	-6.2	19.2	7.6	74.2
Rural	153,050	95,489	75,299	71,253	65,761	58,369	60.3	26.9	5.6	8.4	12.7	162.2
Lowell, Mass.	Included with Boston, Mass.											
Lubbock, Texas	101,048	51,782	39,104	11,096	3,624	293	95.1	32.4	252.4	206.2	1136.9	34387.4
Central city	71,747	31,853	20,520	4,051	***	***	125.2	55.2	406.5	***	***	***
Ring	29,301	19,929	18,584	7,045	3,624	293	47.0	7.2	163.8	94.4	1136.9	9900.3
Urban	5,036	3,587	3,876	***	***	***	40.4	-7.5	***	***	***	***
Rural	24,265	16,342	14,708	7,045	3,624	293	48.5	11.1	108.8	94.4	1136.9	8181.6
Macon, Ga.	135,043	95,086	88,322	93,268	80,255	73,114	42.0	7.7	-5.3	16.2	9.8	84.7
Central city	70,252	57,865	53,829	52,995	40,665	23,272	21.4	7.5	1.6	30.3	74.7	201.9
Ring	64,791	37,221	34,493	40,273	39,590	49,842	74.1	7.9	-14.4	1.7	-20.6	30.0
Urban	11,835	***	***	3,223	2,697	***	***	***	***	19.5	***	***
Rural	52,956	37,221	34,493	37,050	36,893	49,842	42.3	7.9	-6.9	0.4	-26.0	6.2
Madison, Wis.	169,357	130,660	112,737	89,432	77,435	69,435	29.6	15.9	26.1	15.5	11.5	143.9
Central city	96,056	67,447	57,899	38,378	25,531	19,164	42.4	16.5	50.9	50.3	33.2	401.2
Ring	73,301	63,213	54,838	51,054	51,904	50,271	16.0	15.3	7.4	-1.6	3.2	45.8
Urban	7,377	4,743	4,497	5,101	4,761	3,431	55.5	5.5	-11.8	7.1	38.8	115.0
Rural	65,924	58,470	50,341	45,953	47,143	46,840	12.7	16.1	9.5	-2.5	0.6	40.7
Manchester, N.H.	156,987	144,888	140,165	135,512	126,072	112,640	8.4	3.4	3.4	7.5	11.9	39.4
Central city	82,732	76,585	76,834	70,384	70,065	56,987	6.5	1.1	-2.0	11.9	22.9	45.2
Ring	74,255	67,203	63,331	57,128	56,009	55,653	10.5	6.1	10.9	2.0	0.6	35.4
Urban	38,828	36,854	35,531	28,379	26,005	23,898	5.4	3.7	25.2	9.1	8.8	62.5
Rural	35,427	30,349	27,800	28,749	30,004	31,755	16.7	9.2	-3.3	-4.2	-5.5	11.6
Memphis, Tenn.	482,393	358,250	306,482	223,216	191,439	153,557	34.7	16.7	37.3	16.6	24.7	214.1
Central city	396,000	292,942	253,143	162,351	131,105	102,320	35.2	15.7	55.9	23.8	28.1	287.0
Ring	86,393	65,308	60,865	60,865	60,334	51,237	32.3	22.4	-12.4	0.9	17.8	66.6
Urban	4,696	***	***	***	***	***	***	***	***	***	***	***
Rural	81,697	65,308	53,339	60,865	60,334	51,237	25.1	22.4	-12.4	0.9	17.8	59.4
Miami, Fla.	495,084	267,739	142,955	42,753	11,933	4,955	84.9	87.3	234.4	258.3	140.8	9891.6
Central city	249,276	172,172	110,637	29,571	5,471	***	44.8	55.6	274.1	440.5	***	***
Ring	245,808	95,567	32,318	13,182	***	4,955	157.2	195.7	145.2	104.0	30.4	4860.8
Urban	128,278	43,418	14,791	***	***	***	195.4	193.5	***	***	***	***
Rural	117,530	52,449	17,527	13,182	6,462	4,955	125.4	197.5	33.0	104.0	30.4	2271.9
Milwaukee, Wis.	871,047	766,885	725,263	539,449	433,187	330,017	13.6	5.7	34.4	24.5	31.3	163.9
Central city	637,392	587,472	578,249	457,147	373,857	285,315	8.5	1.6	26.5	22.3	31.0	123.4
Ring	233,655	179,413	147,014	82,302	59,330	44,702	30.2	22.0	78.6	38.7	32.7	422.7
Urban	142,950	118,200	100,211	59,583	19,774	6,234	20.9	18.0	153.2	100.2	217.2	2193.1
Rural	90,705	61,213	46,803	42,719	39,556	38,468	48.2	30.8	9.6	8.0	2.8	135.8

Appendix Table 1.-Population and percent of increase in population of standard metropolitan areas, by decades: 1900-1950-Continued

Standard metropolitan area	Population						Percent increase					
	1950	1940	1930	1920	1910	1900	1940-1950	1930-1940	1920-1930	1910-1920	1900-1910	1900-1950
Minneapolis-St. Paul, Minn.	1,116,509	940,937	857,513	704,566	594,819	431,940	18.7	9.7	21.7	18.5	37.7	158.5
Central cities	833,067	780,106	735,962	615,280	516,152	365,783	6.8	6.0	19.6	19.2	11.1	127.7
St. Paul	321,718	492,370	464,595	380,582	301,408	202,718	6.0	6.0	22.0	26.3	148.7	157.4
Ring	311,749	287,756	271,606	234,698	211,744	163,065	8.2	5.9	15.7	9.3	31.7	90.9
Urban	283,412	160,831	121,551	89,286	78,667	66,157	76.2	32.3	36.1	13.5	18.9	328.4
Rural	152,314	72,153	54,990	24,703	20,820	7,580	111.1	31.2	122.6	18.7	174.7	1909.4
	131,128	88,678	66,561	64,583	57,847	58,577	47.9	33.2	3.1	11.6	-1.2	123.9
Mobile, Ala.	231,105	141,974	118,363	100,117	80,854	62,740	62.8	19.9	18.2	23.8	28.9	268.4
Central city	129,009	78,720	68,202	60,777	51,521	38,469	63.9	15.4	12.2	18.0	33.9	235.4
Ring	102,096	63,254	50,161	39,340	29,333	24,271	61.4	26.1	27.5	34.1	20.9	320.7
Urban	23,934	6,084	4,580	3,340	2,333	2,271	293.4	32.8	...	...	...	...
Rural	78,162	57,170	45,581	39,340	29,333	24,271	36.7	25.4	15.9	34.1	20.9	222.0
Montgomery, Ala.	139,965	114,420	98,671	80,853	82,178	72,047	21.5	16.0	22.0	-1.6	14.1	92.9
Central city	106,325	78,084	66,079	43,464	38,136	30,346	36.4	18.2	52.0	11.0	25.7	251.0
Ring	32,440	36,336	32,592	37,389	44,042	41,701	-10.7	11.5	-12.8	-15.1	5.6	-22.2
Urban	...	...	...	...	...	...	...	...	...	...	...	...
Rural	32,440	36,336	32,592	37,389	44,042	41,701	-10.7	11.5	-12.8	-15.1	5.6	-22.2
Muncie, Ind.	90,252	74,963	67,270	56,377	51,441	49,684	20.4	11.4	19.3	9.7	3.6	81.9
Central city	58,179	49,720	46,548	36,524	24,005	20,942	17.6	6.8	27.4	52.2	14.6	179.2
Ring	31,773	25,243	20,722	19,853	27,409	28,682	25.9	21.8	4.4	-27.6	-4.4	10.8
Urban	...	...	...	...	...	...	...	...	...	...	...	...
Rural	31,773	25,243	20,722	19,853	27,409	28,682	25.9	21.8	4.4	-27.6	-4.4	10.8
Nashville, Tenn.	321,758	257,267	222,854	167,815	149,478	122,815	25.1	15.4	32.8	12.3	21.7	162.0
Central city	174,507	167,402	153,866	118,342	110,344	80,865	4.1	8.8	30.0	7.2	36.5	115.6
Ring	147,451	89,865	69,988	49,473	39,114	41,950	41.1	30.3	39.4	26.5	-6.8	251.5
Urban	2,831	...	...	...	...	...	...	...	...	...	...	...
Rural	144,620	89,865	69,988	49,473	39,114	41,950	60.9	30.3	39.4	26.5	-6.8	244.7
New Bedford, Mass.	Included with Fall River, Mass.											
New Britain-Bristol, Conn.	Included with Hartford, Conn.											
New Haven-Waterbury Conn.	545,784	484,316	463,449	415,214	337,282	269,163	12.7	4.5	11.6	23.1	25.3	102.8
Central cities	268,920	259,919	262,557	234,252	206,746	153,886	3.5	-1.0	3.3	23.0	34.4	74.8
New Haven	164,443	160,605	162,537	133,605	108,027	108,027	2.4	1.3	0.1	21.7	23.7	52.2
Waterbury	104,477	99,314	99,902	91,715	73,141	45,899	5.2	-0.6	8.9	25.4	59.5	127.8
Ring	276,844	224,397	200,892	160,962	130,536	115,277	23.4	11.7	24.8	23.3	13.2	140.2
Urban	137,044	125,825	120,460	86,066	83,923	47,432	8.9	4.5	40.0	2.6	24.5	103.3
Rural	139,800	98,572	80,432	74,896	46,613	67,845	41.8	22.6	7.4	60.7	-2.6	192.2
New Orleans, La.	685,405	552,244	505,306	413,750	362,999	307,456	24.1	9.3	22.1	14.1	17.9	122.9
Central city	570,445	494,537	458,762	387,219	339,075	287,104	15.3	7.8	18.5	14.2	18.1	98.7
Ring	114,960	57,707	46,544	26,531	23,524	20,352	99.2	24.0	75.4	12.8	15.6	444.9
Urban	31,070	13,571	7,197	...	...	...	...	...	...	...	...	...
Rural	83,890	44,136	32,973	19,334	23,524	20,352	100.5	26.9	70.5	82.2	15.6	312.2
New York-Northeastern New Jersey	12,911,994	11,660,839	10,859,443	8,490,694	7,049,047	5,048,750	10.7	7.4	27.9	20.5	39.6	155.7
Central cities	8,629,750	8,185,928	7,689,498	6,332,675	5,382,131	3,889,705	5.4	6.5	21.4	17.7	38.4	121.9
New York City	7,891,957	7,434,995	6,930,446	5,620,048	4,766,883	3,437,202	5.9	7.6	23.3	17.9	38.7	129.6
Jersey City, N. J.	299,017	304,173	316,715	298,103	267,779	206,433	-0.7	-4.9	6.2	11.3	29.7	44.8
Hoboken, N. J.	4,284,776	4,299,760	4,444,524	4,444,524	4,444,524	4,444,524	2.1	-2.8	6.7	19.3	141.2	78.3
Ring	4,284,776	3,474,111	3,169,045	2,158,019	1,666,916	1,159,045	23.2	9.6	16.9	29.5	43.8	269.5
Urban	3,126,659	2,709,453	2,543,688	1,665,816	1,201,081	733,621	15.4	6.5	52.7	38.7	63.7	326.2
Rural	1,155,558	765,458	626,257	492,203	465,835	425,424	51.0	22.2	27.2	5.7	9.5	171.6
Norfolk-Portsmouth, Va.	446,200	258,927	229,635	141,148	164,912	126,023	72.3	12.8	-4.8	46.2	30.9	294.1
Central cities	293,552	195,077	175,414	170,144	100,442	64,051	50.5	11.2	3.1	69.1	57.1	358.3
Norfolk	213,513	144,332	129,710	115,777	67,452	46,624	47.9	11.3	12.0	71.6	44.7	357.9
Portsmouth	80,039	50,745	45,704	54,387	33,190	17,427	57.7	11.0	-16.0	63.9	90.5	359.3
Ring	152,648	63,850	54,221	70,984	64,270	61,972	139.1	17.8	-23.6	10.4	3.7	146.3
Urban	19,633	10,638	7,857	7,724	...	4,988	84.6	35.4	1.7	...	...	293.6
Rural	133,015	53,212	46,364	63,260	64,270	56,984	150.0	14.8	-16.7	-1.6	12.8	133.4
Ogden, Utah	83,319	56,714	52,172	43,463	35,179	25,239	46.9	8.7	20.0	23.5	39.4	230.1
Central city	57,112	43,688	40,272	32,804	25,580	16,313	30.7	8.5	22.8	28.2	56.8	250.1
Ring	26,207	13,026	11,900	10,699	9,599	8,926	101.2	9.5	11.6	11.0	7.5	193.6
Urban	7,486	...	...	...	...	...	...	...	...	...	...	...
Rural	18,721	13,026	11,900	10,699	9,599	8,926	43.7	9.5	11.6	11.0	7.5	109.7
Oklahoma City, Okla.	325,352	244,159	221,738	116,307	85,232	25,915	33.3	10.1	90.6	36.5	228.9	1155.5
Central city	243,504	204,424	185,389	131,295	64,205	10,037	19.1	10.3	103.1	42.2	539.7	1326.1
Ring	81,848	39,735	36,349	25,012	21,027	15,878	106.0	9.3	45.3	19.0	32.4	415.5
Urban	27,067	6,592	3,576	...	...	...	310.6	84.3	...	...	...	...
Rural	54,781	33,143	32,773	25,012	21,027	15,878	65.3	1.1	31.0	19.0	32.4	245.0
Omaha, Nebr.	366,395	325,153	313,272	275,444	233,652	204,006	12.7	3.8	13.7	17.9	14.5	79.6
Central city	251,117	214,004	214,004	191,601	124,096	102,555	12.2	4.6	11.7	54.4	...	144.7
Ring	115,378	101,309	92,266	83,843	109,556	101,451	13.8	2.1	18.4	-23.5	8.0	13.6
Urban	49,287	41,439	42,048	36,162	58,721	51,803	18.9	-1.4	16.3	-38.4	13.4	-4.9
Rural	65,991	59,870	57,218	47,681	50,835	49,648	10.2	4.6	20.0	-6.2	2.4	32.9
Orlando, Fla.	114,950	79,074	49,737	19,890	19,107	11,374	64.0	40.9	150.1	4.1	68.0	910.6
Central city	52,367	36,736	27,330	9,282	3,894	...	42.5	34.4	194.4	138.4	...	...
Ring	62,583	33,338	22,407	10,608	15,213	11,374	87.7	111.2	-30.3	33.8	...	450.2
Urban	11,753	7,775	3,686	...	3,570	...	51.2	110.9	...	...	...	...
Rural	50,830	25,563	18,721	10,608	11,643	11,374	98.8	36.5	76.5	-8.9	2.4	346.9

Appendix Table 1.-Population and percent of increase in population of standard metropolitan areas, by decades: 1900-1950-Continued

Standard metropolitan area	Population						Percent increase					
	1950	1940	1930	1920	1910	1900	1940-1950	1930-1940	1920-1930	1910-1920	1900-1910	1900-1950
Peoria, Ill.	250,512	211,736	187,426	150,250	134,282	121,829	18.3	13.0	24.7	11.9	10.2	105.6
Central city	111,856	105,087	104,969	76,121	66,950	56,100	6.4	0.1	37.9	13.7	19.3	99.4
Ring	138,656	106,649	82,457	74,129	67,332	65,729	30.0	29.3	11.2	10.1	2.4	111.0
Urban	52,225	34,124	24,435	15,901	12,565	8,420	53.0	39.7	57.7	26.5	49.2	520.2
Rural	86,431	72,525	58,022	58,228	54,767	57,309	19.2	25.0	-0.4	6.3	-4.4	50.8
Philadelphia, Pa.	3,671,048	3,199,637	3,137,040	2,714,271	2,268,209	1,892,128	14.7	2.0	15.6	19.7	19.9	94.0
Central city	2,071,605	1,931,334	1,950,961	1,823,779	1,549,008	1,293,697	7.3	-1.0	7.0	17.7	19.7	60.1
Ring	1,599,443	1,268,303	1,186,079	890,492	719,201	598,431	26.1	6.9	33.2	23.8	20.2	167.3
Urban	923,717	798,387	715,256	469,158	314,307	234,602	21.8	6.0	52.5	49.3	34.0	293.7
Rural	675,726	509,916	470,823	421,334	404,894	363,829	32.5	8.3	11.7	4.1	11.3	85.7
Phoenix, Ariz.	331,770	186,193	150,970	89,576	34,488	20,457	78.2	23.3	68.5	159.7	68.6	1521.8
Central city	106,818	65,444	48,118	29,053	11,134	5,544	62.3	35.9	65.6	160.9	100.8	1826.7
Ring	224,952	120,749	102,852	60,523	23,354	14,913	86.3	17.4	69.9	159.2	56.6	1408.4
Urban	44,999	14,985	7,376	5,773	...	...	180.3	103.2	27.8	...	...	...
Rural	182,953	105,764	95,476	54,750	23,354	14,913	72.9	10.8	74.4	134.4	56.6	1126.8
Pittsburgh, Pa.	2,213,236	2,082,556	2,023,269	1,799,989	1,471,800	1,083,846	6.3	2.9	15.0	19.6	35.8	104.2
Central city	676,806	671,699	669,817	588,343	533,905	451,512	0.8	0.3	13.8	10.2	18.2	49.9
Ring	1,536,430	1,410,857	1,353,452	1,171,646	937,895	632,334	8.9	4.2	15.5	24.9	48.3	143.0
Urban	914,706	891,861	827,526	666,528	465,966	240,451	7.4	2.9	24.2	7.0	93.8	280.4
Rural	621,724	519,036	525,926	505,118	471,929	391,883	11.2	6.3	4.1	43.0	20.4	58.7
Pittsfield, Mass.	132,966	122,273	120,700	113,033	105,299	95,667	8.7	1.3	6.8	7.4	10.0	39.0
Central city	53,248	49,684	49,677	44,765	32,121	21,766	7.4	...	18.9	30.0	47.6	145.1
Ring	79,718	72,589	71,023	71,270	73,178	73,901	2.2	-0.3	-2.6	-1.0	7.7	...
Urban	49,905	48,533	45,077	45,649	44,188	41,188	1.7	1.1	6.3	1.3	9.4	21.2
Rural	29,713	23,516	22,490	25,621	28,061	32,713	26.4	4.6	-12.2	-8.7	-14.2	-9.2
Portland, Me.	169,201	146,000	134,645	124,376	112,014	100,689	15.9	8.4	8.3	11.0	11.2	68.0
Central city	77,634	73,643	70,810	69,272	58,571	50,145	5.4	4.0	2.2	18.3	16.8	54.8
Ring	91,567	72,357	63,835	55,104	53,443	50,544	26.5	13.4	15.8	3.1	5.7	81.2
Urban	44,492	33,871	30,791	24,491	21,093	18,780	22.5	10.0	25.7	16.1	12.3	120.9
Rural	50,075	38,486	33,044	30,613	32,350	31,764	30.1	16.5	7.9	-5.4	1.8	57.6
Portland, Oreg.	704,829	501,275	455,037	372,777	303,829	150,711	40.6	10.2	22.1	22.7	101.6	367.7
Central city	373,628	305,394	288,288	207,244	207,244	90,426	25.3	1.2	16.9	24.6	129.2	313.2
Ring	331,201	195,881	155,222	114,489	96,645	60,285	69.1	27.8	33.8	18.5	60.3	449.4
Urban	80,631	33,092	28,805	18,323	18,459	6,620	143.7	14.9	57.2	-0.7	178.8	1118.0
Rural	250,570	162,789	124,417	96,166	78,156	53,665	53.9	30.8	29.4	23.0	45.6	366.9
Providence, R. I.	681,815	634,157	616,495	536,572	478,333	371,803	7.5	2.9	14.9	12.2	28.7	83.4
Central city	248,674	253,504	252,981	237,595	224,326	175,597	-1.9	0.2	6.5	5.9	27.8	44.6
Ring	433,141	380,653	363,514	298,977	254,007	196,206	13.8	4.7	21.6	17.7	29.5	120.8
Urban	401,792	358,148	343,839	277,344	233,767	172,892	12.2	4.2	24.0	18.6	35.2	132.4
Rural	31,349	22,505	19,675	21,633	20,540	23,314	39.3	14.4	-9.1	6.9	-13.2	34.5
Pueblo, Colo.	90,188	68,870	66,038	57,638	52,223	34,448	31.0	4.3	14.6	10.4	51.6	161.8
Central city	63,685	52,162	50,096	43,050	41,747	28,157	22.1	4.1	16.4	3.1	48.3	126.2
Ring	26,503	16,708	15,942	14,588	10,476	6,291	58.6	4.8	9.3	39.3	66.5	321.3
Urban	...	...	...	...	...	...	...	...	...	...	...	...
Rural	26,503	16,708	15,942	14,588	10,476	6,291	58.6	4.8	9.3	39.3	66.5	321.3
Racine, Wis.	109,585	94,047	90,217	78,961	57,424	45,644	16.5	4.2	14.3	37.5	25.8	140.1
Central city	71,193	67,195	67,542	58,593	38,002	29,102	5.9	-0.5	15.3	54.2	30.6	144.6
Ring	38,392	26,852	22,675	20,368	19,422	16,542	43.0	18.4	11.3	4.9	17.4	132.1
Urban	4,780	4,144	3,626	3,626	3,212	2,526	8.3	7.3	13.5	12.9	27.2	89.2
Rural	33,612	22,438	18,561	16,742	16,210	14,016	49.8	20.9	10.9	3.3	15.7	139.8
Raleigh, N. C.	136,450	109,544	94,757	75,155	63,229	54,626	24.6	15.6	26.1	18.9	15.7	149.8
Central city	65,679	46,897	37,579	24,418	19,218	13,443	40.0	25.5	53.1	27.1	40.9	381.4
Ring	70,771	62,647	57,178	50,737	44,011	40,983	13.0	9.2	13.1	15.3	7.4	72.7
Urban	3,704	...	...	...	...	...	...	...	...	...	...	...
Rural	67,067	62,647	57,178	50,737	44,011	40,983	7.1	9.2	13.1	15.3	7.4	63.6
Reading, Pa.	255,740	241,884	231,717	200,854	183,222	159,615	5.7	4.4	15.4	9.6	14.8	60.2
Central city	109,320	110,568	111,171	107,784	96,071	78,961	-1.1	-0.5	3.1	12.2	21.7	38.4
Ring	146,420	131,316	120,546	93,070	87,151	80,654	11.5	8.9	29.5	6.8	8.1	81.5
Urban	38,236	34,189	29,400	14,857	2,930	...	11.8	16.3	97.9	307.1	...	...
Rural	108,184	97,127	91,146	78,213	84,221	80,654	11.4	6.6	16.5	-7.1	4.4	34.1
Richmond, Va. ^{1/}	328,050	262,991	236,957	211,135	172,364	143,631	24.7	11.0	12.2	22.5	20.0	128.4
Central city	230,310	193,042	182,929	171,667	127,628	85,050	19.3	5.5	6.6	34.5	50.1	170.8
Ring	97,740	69,949	54,028	39,468	44,736	58,581	39.7	29.5	36.9	-11.8	-23.6	66.8
Urban	...	...	...	...	...	...	...	...	...	...	...	...
Rural	97,740	69,949	54,028	39,468	44,736	58,581	39.7	29.5	36.9	-11.8	-8.5	100.0
Roanoke, Va.	133,407	112,184	104,495	73,237	54,497	37,332	18.9	7.4	42.7	34.4	46.0	257.4
Central city	91,921	69,287	60,206	50,842	34,874	21,495	32.7	0.1	36.1	45.8	62.2	327.6
Ring	41,486	42,897	35,289	22,395	19,623	15,837	-3.3	21.6	57.6	14.1	23.9	162.0
Urban	10,452	9,192	8,443	6,938	3,849	3,412	13.7	8.9	21.7	80.3	12.8	206.3
Rural	31,034	33,705	26,846	15,457	15,774	12,425	-7.9	25.5	73.7	-2.0	27.0	149.8
Rochester, N. Y.	487,632	438,230	423,881	352,054	283,212	217,854	11.3	3.4	20.4	24.3	30.0	123.8
Central city	332,488	324,975	328,132	295,750	248,149	162,608	2.3	-1.0	10.9	35.6	34.2	104.5
Ring	155,144	113,255	95,749	56,284	65,065	55,246	37.0	18.3	70.1	-13.5	17.8	180.8
Urban	51,454	38,301	32,766	11,507	6,691	3,398	34.3	16.9	184.7	72.0	96.9	1444.2
Rural	103,690	74,934	62,983	44,777	58,372	51,848	38.3	19.0	40.7	-23.3	12.6	100.0
Rockford, Ill.	152,385	121,178	117,373	90,929	63,153	47,845	25.8	3.2	29.1	44.0	32.0	218.5
Central city	92,927	84,677	85,864	65,651	45,401	31,051	9.8	-1.4	30.8	44.6	46.2	199.3
Ring	59,458	36,541	31,509	25,278	17,752	16,794	62.7	16.0	20.6	42.4	5.7	254.0
Urban	8,587	2,825	...	...	...	...	204.0	...	...	...	...	...
Rural	50,871	33,716	31,509	25,278	17,752	16,794	50.9	7.0	24.6	42.4	5.7	202.9

^{1/} Colonial Heights, which became an independent city in 1948, has been excluded from the S.M.A. totals.

Appendix Table 1.-Population and percent of increase in population of standard metropolitan areas, by decades: 1900-1950-Continued

Standard metropolitan area	Population						Percent increase					
	1950	1940	1930	1920	1910	1900	1940-1950	1930-1940	1920-1930	1910-1920	1900-1910	1900-1950
Sacramento, Calif.	277,140	170,333	141,999	91,029	67,806	45,915	62.7	20.0	56.0	34.2	47.7	503.6
Central city	137,572	109,958	93,750	65,098	44,696	29,282	29.8	13.0	42.2	47.5	52.6	369.8
Ring	139,568	64,375	48,249	25,121	23,110	16,633	116.8	33.4	92.1	8.7	38.9	739.1
Urban	6,029	3,053	***	***	***	***	97.5	***	***	***	***	***
Rural	133,539	61,322	48,249	25,121	23,110	16,633	117.8	27.1	92.1	8.7	38.9	702.9
Saginaw, Mich.	153,515	130,468	120,717	100,286	89,290	81,222	17.7	8.1	20.4	12.3	9.9	89.0
Central city	92,918	82,794	80,715	61,903	50,510	42,345	12.2	2.6	30.4	22.6	19.3	119.4
Ring	60,597	47,674	40,002	38,383	38,780	38,877	27.1	19.2	4.2	-1.0	-0.2	55.9
Urban	***	***	***	***	***	***	***	***	***	***	***	***
Rural	60,597	47,674	40,002	38,383	38,780	38,877	27.1	19.2	4.2	-1.0	-0.2	55.9
St. Joseph, Mo.	96,826	94,067	98,633	93,684	93,020	121,838	2.9	-4.6	5.3	0.7	-23.7	-20.5
Central city	78,588	75,711	80,935	77,403	77,403	102,979	3.8	-6.5	3.8	0.7	-24.8	-23.7
Ring	18,238	18,356	17,698	15,745	15,617	18,859	-0.6	3.7	12.4	0.8	-17.2	-3.3
Urban	***	***	***	***	***	***	***	***	***	***	***	***
Rural	18,238	18,356	17,698	15,745	15,617	18,859	-0.6	3.7	12.4	0.8	-17.2	-3.3
St. Louis, Mo.	1,681,281	1,432,088	1,359,512	1,139,877	1,003,858	801,131	17.4	5.3	19.3	13.5	25.3	109.9
Central city	856,796	816,048	821,960	772,897	687,029	575,238	5.0	-0.7	6.3	12.5	19.4	48.9
Ring	824,485	616,040	537,552	366,980	316,829	225,893	33.8	14.6	16.5	15.8	40.3	265.0
Urban	503,936	340,398	306,333	201,037	166,925	83,456	44.6	13.7	52.4	20.4	100.0	503.8
Rural	320,549	267,642	231,219	165,943	149,904	142,437	19.8	15.8	39.2	10.7	5.2	125.0
Salt Lake City, Utah	274,895	211,623	194,102	159,282	131,426	77,725	29.9	9.0	21.9	21.2	69.1	253.7
Central city	182,121	149,324	140,267	118,110	92,777	53,551	21.5	6.9	18.8	27.3	73.3	240.2
Ring	92,774	61,299	53,835	41,172	38,649	24,194	50.4	14.6	16.5	6.5	99.7	283.5
Urban	23,275	17,150	8,420	7,260	6,938	***	35.7	103.7	16.0	4.6	***	***
Rural	69,499	44,149	45,415	33,912	31,711	24,194	56.0	-1.9	33.9	6.9	31.1	187.3
San Angelo, Texas	58,929	39,302	36,033	15,210	17,882	6,804	49.9	9.1	136.9	-14.9	162.8	766.1
Central city	52,093	25,802	25,308	10,050	10,321	***	101.9	2.0	151.8	-2.6	***	***
Ring	6,836	13,500	10,725	5,160	7,561	6,804	-49.4	25.9	107.8	-31.8	11.1	0.5
Urban	***	***	***	***	***	***	***	***	***	***	***	***
Rural	6,836	13,500	10,725	5,160	7,561	6,804	-49.4	25.9	107.8	-31.8	11.1	0.5
San Antonio, Texas	500,460	338,176	292,533	202,096	119,676	69,422	48.0	15.6	44.7	68.9	72.4	620.9
Central city	408,442	259,834	231,542	161,379	96,614	53,321	60.9	9.6	43.5	67.0	81.2	666.0
Ring	92,018	84,322	60,991	40,717	23,062	16,101	9.1	38.3	49.8	76.6	43.2	471.5
Urban	13,549	6,582	***	***	***	***	137.7	-13.4	***	***	***	***
Rural	78,469	78,222	54,409	40,717	23,062	16,101	-0.2	44.5	33.6	76.6	43.2	387.4
San Bernardino, Calif.	281,642	161,108	133,900	73,101	56,706	27,929	74.8	20.3	82.4	29.4	103.0	908.4
Central city	63,058	43,446	37,481	18,721	12,779	6,150	44.5	16.4	100.2	46.5	107.8	925.3
Ring	218,584	117,662	96,419	54,380	43,927	21,779	86.1	21.8	76.3	24.5	101.7	905.6
Urban	84,095	52,351	46,749	26,852	18,703	4,797	60.6	12.0	74.1	43.6	289.9	1653.1
Rural	134,489	65,111	49,670	27,528	25,224	16,982	106.6	31.1	78.5	10.3	48.5	692.0
San Diego, Calif.	556,808	289,348	209,699	112,248	61,665	35,090	92.4	38.0	86.8	82.0	75.7	1486.8
Central city	334,387	203,341	147,995	74,361	39,578	17,700	44.4	37.4	99.0	87.9	123.6	1789.2
Ring	222,421	86,007	61,644	37,887	22,087	17,390	198.6	39.5	62.8	71.5	27.0	1179.0
Urban	85,797	35,950	26,037	10,353	***	***	141.3	36.5	146.7	***	***	***
Rural	136,624	50,457	35,627	27,334	22,087	17,390	170.8	41.6	30.3	23.8	27.0	685.6
San Francisco-Oakland, Calif.	2,240,767	1,461,804	1,347,772	1,009,467	773,975	542,964	53.3	8.5	33.5	30.4	42.5	312.7
Central cities	1,159,932	936,699	918,457	722,937	567,086	409,742	23.8	2.0	27.0	27.5	38.4	183.1
San Francisco	775,357	534,536	534,536	506,676	416,912	342,782	22.2	***	25.2	21.5	21.6	126.2
Oakland	384,575	302,163	284,063	216,261	150,174	66,960	27.3	6.4	31.4	44.0	124.3	474.3
Ring	1,080,835	529,105	429,315	286,530	206,889	133,222	105.8	22.3	49.8	38.5	55.3	711.3
Urban	691,789	344,607	290,062	176,420	102,382	43,394	100.7	18.8	44.4	72.3	135.9	1404.2
Rural	389,046	184,498	159,253	110,110	104,507	89,828	115.5	29.6	26.5	5.4	16.3	333.1
San Jose, Calif.	290,547	174,949	145,118	100,676	83,539	60,216	66.1	20.6	44.1	20.5	38.7	382.5
Central city	95,280	68,457	57,651	39,442	28,946	21,500	39.2	18.7	45.4	37.0	34.6	343.2
Ring	195,267	106,492	87,467	61,034	54,593	38,716	83.4	21.8	45.3	11.8	44.0	404.4
Urban	63,427	38,955	37,193	13,982	8,834	3,650	62.8	4.7	166.0	58.3	142.0	1637.7
Rural	131,840	67,537	50,274	47,052	45,759	35,066	95.2	34.3	6.8	2.8	30.5	276.0
Savannah, Ga.	151,481	117,970	105,431	100,032	79,690	71,239	28.4	11.9	5.4	25.5	11.9	112.6
Central city	119,638	95,996	85,024	83,282	65,064	54,244	24.6	12.9	2.1	28.0	19.9	120.6
Ring	31,843	21,974	20,407	16,780	14,626	16,995	44.9	7.7	21.6	44.7	-13.9	87.4
Urban	***	***	***	***	***	***	***	***	***	***	***	***
Rural	31,843	21,974	20,407	16,780	14,626	16,995	44.9	7.7	21.6	44.7	-13.9	87.4
Spartanburg, Pa.	257,396	301,243	310,397	286,311	299,570	193,831	-14.6	-2.9	8.4	10.3	33.9	32.8
Central city	125,536	140,104	143,433	137,783	129,867	102,026	-10.6	-2.1	4.1	6.1	27.3	23.0
Ring	131,860	160,839	166,964	148,528	129,703	91,805	-18.0	-3.7	12.4	44.5	44.3	43.6
Urban	104,234	129,593	137,751	123,232	106,611	62,395	-19.6	-5.9	11.8	15.6	70.9	67.1
Rural	27,626	31,246	29,213	25,296	23,092	29,410	-11.6	7.0	15.1	9.5	-21.5	-6.1
Seattle, Wash.	732,992	504,980	463,517	389,273	284,638	110,053	45.2	8.9	19.1	36.8	158.6	566.0
Central city	467,591	368,302	365,583	315,312	237,194	80,671	27.0	0.7	15.9	32.9	194.0	479.6
Ring	265,401	136,678	97,934	73,961	47,444	29,382	94.2	39.6	23.3	55.9	61.5	803.3
Urban	33,316	13,912	7,968	6,444	2,740	4,568	139.5	74.6	23.3	135.9	-40.0	629.3
Rural	232,085	122,766	89,966	67,497	44,704	24,814	89.0	36.5	33.3	51.0	80.2	835.3
Shreveport, La.	176,547	150,203	124,670	83,265	58,200	44,499	17.5	20.5	49.7	43.1	30.8	296.7
Central city	127,206	98,167	76,695	43,784	28,015	16,013	29.6	28.1	74.7	56.6	75.0	694.4
Ring	49,341	52,036	48,015	39,391	30,185	28,486	-5.2	8.4	21.9	30.5	6.0	73.2
Urban	***	***	***	***	***	***	***	***	***	***	***	***
Rural	49,341	52,036	48,015	39,391	30,185	28,486	-5.2	8.4	21.9	30.5	6.0	73.2
Sioux City, Iowa	103,917	82,627	101,669	92,171	67,616	54,610	0.3	1.9	10.3	36.3	23.8	90.3
Central city	83,991	62,344	79,183	71,227	47,828	33,111	2.0	4.0	11.2	48.9	44.4	153.7
Ring	19,926	21,283	22,486	20,944	19,788	21,499	-6.3	-5.4	7.4	5.8	-8.0	-7.3
Urban	***	***	***	***	***	***	***	***	***	***	***	***
Rural	19,926	21,283	22,486	20,944	19,788	21,499	-6.3	-5.4	7.4	5.8	-8.0	-7.3

Appendix Table 1.—Population and percent of increase in population of standard metropolitan areas, by decades: 1900-1950-Continued

Standard metropolitan area	Population						Percent increase					
	1950	1940	1930	1920	1910	1900	1940-1950	1930-1940	1920-1930	1910-1920	1900-1910	1900-1950
Sioux Falls, S. Dak.	70,910	57,697	50,872	42,490	29,631	23,926	22.9	13.4	19.7	43.4	23.8	196.4
Central city	52,696	40,832	33,362	25,202	14,094	10,266	29.1	22.4	32.4	78.8	37.3	413.3
Ring	18,214	16,865	17,510	17,288	15,537	13,660	8.0	-3.7	1.3	11.3	13.7	33.3
Urban	...	...	...	...	...	...	...	...	...	...	...	...
Rural	18,214	16,865	17,510	17,288	15,537	13,660	8.0	-3.7	1.3	11.3	13.7	33.3
South Bend, Ind.	205,058	161,823	160,033	103,304	84,312	58,881	26.7	1.1	54.9	22.5	43.2	248.3
Central city	115,911	101,268	104,195	70,983	55,684	35,999	14.5	-2.8	46.8	32.2	49.1	222.0
Ring	89,147	60,555	55,840	32,321	30,628	22,882	47.2	8.4	72.8	5.5	33.9	289.6
Urban	32,913	28,298	28,630	15,195	11,886	5,560	16.3	-1.2	88.4	27.8	113.8	162.0
Rural	56,234	32,257	27,200	17,126	18,742	17,322	74.3	18.5	58.9	-8.6	8.2	224.6
Spokane, Wash.	221,561	164,652	150,477	141,289	139,104	57,542	34.6	9.4	6.5	4.4	142.3	285.0
Central city	161,721	122,001	115,514	104,437	104,402	36,848	32.6	5.6	10.6	...	183.3	338.9
Ring	59,840	42,651	34,965	36,852	35,002	20,694	40.3	22.0	-5.1	5.3	69.1	189.2
Urban	7,285	...	...	3,942	3,276	...	...	...	...	...	...	...
Rural	52,555	42,651	34,965	32,910	31,726	20,694	23.2	22.0	6.2	3.7	53.3	154.0
Springfield, Ill.	131,484	117,912	111,733	100,262	91,024	71,593	11.5	5.5	11.4	10.1	27.1	83.7
Central city	81,628	75,503	71,844	59,183	51,678	34,159	8.1	5.1	21.4	14.5	51.3	139.0
Ring	49,856	42,409	39,869	41,079	39,346	37,434	17.6	6.4	-2.9	4.4	5.1	33.2
Urban	...	...	...	2,660	...	...	...	...	...	...	...	...
Rural	49,856	42,409	39,869	38,419	39,346	37,434	17.6	6.4	3.8	-2.4	5.1	33.2
Springfield, Mo.	104,823	90,541	82,929	68,698	63,831	52,713	15.8	5.2	20.7	7.6	21.1	98.9
Central city	66,731	61,238	57,527	39,631	35,201	23,267	9.0	6.5	15.2	12.6	51.3	186.8
Ring	38,092	29,303	25,402	29,067	28,630	29,446	30.0	15.4	-12.6	1.5	-2.8	29.4
Urban	...	...	...	...	...	...	...	...	...	...	...	...
Rural	38,092	29,303	25,402	29,067	28,630	29,446	30.0	15.4	-12.6	1.5	-2.8	29.4
Springfield, Ohio	111,661	95,647	90,936	80,728	66,435	58,939	16.7	5.2	12.6	21.5	12.7	89.5
Central city	78,508	70,662	68,743	60,840	46,921	38,253	11.1	2.8	13.0	29.7	22.7	105.2
Ring	33,153	24,985	22,193	19,888	19,514	20,686	32.7	12.6	11.6	1.9	-5.7	60.3
Urban	...	...	...	...	...	...	...	...	...	...	...	...
Rural	33,153	24,985	22,193	19,888	19,514	20,686	32.7	12.6	11.6	1.9	-5.7	60.3
Springfield-Holyoke, Mass.	455,565	404,568	408,297	369,904	294,696	234,423	12.6	-0.9	10.4	25.5	25.7	94.3
Central cities	217,060	203,304	206,437	189,817	146,656	107,771	6.8	-1.5	8.8	29.4	36.1	104.4
Springfield	162,399	149,594	149,900	129,614	88,926	62,059	8.6	-0.2	15.7	45.8	43.3	161.7
Holyoke	54,661	53,750	56,537	60,203	57,730	45,712	1.7	-4.9	-6.1	4.3	26.3	19.6
Ring	238,505	201,244	201,860	180,087	148,040	126,682	18.5	-0.3	12.1	21.6	16.9	88.3
Urban	183,587	156,645	159,029	138,441	110,962	88,446	17.2	-1.5	14.9	24.8	25.5	107.6
Rural	54,918	44,619	42,831	41,646	37,078	38,206	23.1	4.2	2.8	12.3	-3.0	43.7
Stamford-Norwalk, Conn.	Included with Bridgeport, Conn.											
Stockton, Calif.	200,750	134,207	102,940	79,905	50,731	35,452	49.6	30.4	28.8	57.5	43.1	466.3
Central city	70,853	70,744	47,863	40,296	23,253	17,506	29.5	14.1	19.0	73.3	32.8	304.7
Ring	129,897	79,463	54,977	39,609	27,478	17,946	63.4	44.6	38.8	44.1	53.1	623.8
Urban	26,012	15,135	10,617	4,850	5,597	...	...	...	118.9	79.8	...	...
Rural	103,885	44,358	44,360	34,759	24,781	17,946	61.4	45.1	27.6	40.3	38.1	478.9
Syracuse, N. Y.	341,719	295,108	291,606	211,465	200,298	168,735	15.8	1.2	20.8	20.6	18.7	102.5
Central city	220,583	205,967	209,326	171,717	137,449	108,374	7.1	-1.6	21.9	25.1	26.6	103.5
Ring	121,136	89,141	82,280	69,748	63,049	60,361	35.9	8.3	18.0	10.6	4.5	100.7
Urban	26,042	19,061	16,477	15,143	11,512	8,994	36.6	15.7	8.8	31.5	28.0	189.5
Rural	95,094	70,080	65,803	54,605	51,537	51,367	35.7	6.5	20.5	6.0	0.3	85.1
Tacoma, Wash.	275,876	182,081	163,842	144,127	120,812	55,515	51.5	11.1	13.7	19.3	117.6	396.9
Central city	143,673	109,408	106,817	96,965	89,743	37,714	31.3	2.4	10.2	15.8	122.0	281.0
Ring	132,203	72,673	57,025	47,162	37,069	17,801	81.9	27.4	20.9	27.2	108.2	642.7
Urban	15,531	7,889	4,584	3,323	4,344	...	...	...	11.2	12.2	...	...
Rural	116,672	44,784	49,931	40,839	32,525	17,801	80.1	29.7	22.3	25.6	82.7	555.4
Tampa-St. Petersburg, Fla.	409,143	272,000	215,668	116,522	78,374	36,013	50.4	26.1	85.1	48.7	117.6	1036.1
Central cities	221,419	169,203	141,586	65,845	41,909	15,839	30.9	19.5	115.0	36.6	144.6	1297.9
Tampa	124,681	108,391	101,161	51,608	37,782	15,839	15.0	7.1	96.0	36.6	138.5	687.2
St. Petersburg	96,738	60,812	40,425	14,237	4,127	...	...	...	185.9	245.0	...	...
Ring	187,724	102,797	74,082	50,677	36,465	20,174	82.6	38.8	46.2	39.0	80.8	830.5
Urban	38,962	21,029	17,821	12,192	8,258	...	...	...	46.2	47.6	...	...
Rural	148,762	81,768	56,261	38,485	28,207	20,174	81.9	45.3	46.2	36.4	39.8	637.4
Terre Haute, Ind.	105,160	99,709	98,861	100,212	87,930	62,035	5.5	0.9	-1.3	14.0	41.7	69.5
Central city	64,214	62,693	62,810	66,083	58,157	36,673	2.4	-0.2	-5.0	13.6	58.6	75.1
Ring	40,946	37,016	36,051	34,129	29,773	25,362	10.6	2.7	5.6	17.4	61.4	61.4
Urban	3,357	3,789	3,588	4,310	3,083	...	...	...	-16.8	39.8	...	...
Rural	37,589	33,227	32,463	29,819	26,690	25,362	12.9	2.5	8.9	11.7	5.2	48.2
Toledo, Ohio	395,551	344,333	347,709	275,721	192,728	153,559	14.9	-1.0	26.1	43.1	25.5	157.6
Central city	303,616	282,349	290,718	243,164	168,497	131,822	7.5	-2.9	19.6	44.3	27.8	130.3
Ring	91,935	61,984	56,991	32,557	24,231	21,737	48.3	8.8	75.0	34.4	11.5	322.9
Urban	5,548	4,683	4,588	3,195	...	...	...	...	2.1	43.6	...	...
Rural	86,387	57,301	52,403	29,362	24,231	21,737	50.8	9.3	78.5	21.2	11.5	297.4
Topeka, Kans.	105,418	91,247	85,200	69,159	61,874	53,727	15.5	7.1	23.2	11.8	15.2	96.2
Central city	78,791	67,833	64,120	50,022	45,684	33,608	16.2	5.8	28.2	14.5	30.0	134.4
Ring	26,627	23,414	21,080	19,137	18,190	20,119	13.7	11.1	10.2	5.2	-9.6	32.3
Urban	...	...	...	...	...	...	...	...	...	...	...	...
Rural	26,627	23,414	21,080	19,137	18,190	20,119	13.7	11.1	10.2	5.2	-9.6	32.3
Trenton, N. J.	229,781	197,318	187,143	159,881	125,657	95,365	16.5	5.4	17.1	27.2	31.8	140.9
Central city	128,009	124,697	123,356	119,289	96,815	73,307	2.7	1.1	3.4	23.2	32.1	74.6
Ring	101,772	72,621	63,787	40,592	28,842	22,058	40.1	13.8	57.1	40.7	30.8	361.4
Urban	15,942	11,205	10,004	8,591	5,136	3,899	42.3	12.0	16.4	67.3	31.7	308.9
Rural	85,830	61,414	53,783	32,001	23,706	18,159	39.8	14.2	68.1	35.0	30.5	372.7

Appendix Table 1.-Population and percent of increase in population of standard metropolitan areas, by decades: 1900-1950-Continued

Standard metropolitan area	Population						Percent increase					
	1950	1940	1930	1920	1910	1900	1940-1950	1930-1940	1920-1930	1910-1920	1900-1910	1900-1950
Tulsa, Okla.	251,686	193,363	187,574	109,023	34,995	1,390	30.2	3.1	72.0	211.5	2417.6	18006.9
Central city	182,740	142,157	141,258	72,075	18,182	...	28.5	0.6	96.0	296.4	...	...
Ring	68,946	51,206	46,316	36,948	16,813	1,390	34.6	10.6	25.4	119.8	1109.6	4860.1
Urban	10,256	6,137	6,674	7,877	...	...	67.1	-8.0	-15.3	...	...	...
Rural	58,690	45,069	39,642	29,071	16,813	1,390	30.2	13.7	36.4	72.9	1109.6	4122.3
Utica-Rome, N. Y.	284,262	263,163	262,769	247,795	210,513	183,849	8.0	0.1	6.0	17.7	14.5	54.6
Central cities	143,213	134,732	134,078	120,497	94,916	71,726	6.3	0.5	11.3	27.0	32.3	99.7
Utica	101,531	100,518	101,740	94,156	74,419	56,383	1.0	-1.2	8.1	26.5	32.0	80.1
Rome	41,682	34,214	32,338	26,341	20,497	15,343	21.8	5.8	22.8	28.5	33.6	171.7
Ring	141,049	128,431	128,691	127,298	115,597	112,123	9.8	-0.2	1.1	10.1	3.1	25.8
Urban	49,178	48,956	52,391	47,036	32,194	23,738	0.5	-6.6	11.4	46.1	35.6	107.2
Rural	91,871	79,475	76,300	80,262	83,403	88,385	15.6	4.2	-4.9	-3.8	-5.6	3.9
Waco, Texas	130,194	101,898	98,682	82,921	73,250	59,772	27.8	3.3	19.0	13.2	22.5	117.8
Central city	84,706	55,982	52,848	38,500	26,425	20,686	51.3	5.9	37.3	45.7	27.7	309.5
Ring	45,488	45,916	45,834	44,421	46,825	39,086	-0.9	0.2	3.2	-5.1	19.8	16.4
Urban	2,669	2,856	3,105	3,105	2,939	...	-6.5	0.1	-8.1	5.6	...	...
Rural	42,819	43,060	42,981	41,316	43,886	39,086	-0.6	0.2	4.0	-5.9	12.3	9.6
Washington, D. C.	1,464,089	967,985	672,198	571,882	445,401	378,605	51.3	44.0	17.5	28.4	17.6	286.7
Central city	802,178	663,091	486,849	437,571	331,069	278,718	21.0	36.2	11.3	32.2	18.8	187.8
Ring	661,911	304,894	185,389	134,311	114,332	99,887	117.1	44.5	38.0	17.5	44.5	562.7
Urban	289,068	119,136	41,192	23,903	15,389	14,528	142.6	189.2	72.3	55.9	5.5	1889.7
Rural	372,843	185,758	144,137	110,408	99,003	85,359	100.7	28.9	30.5	11.5	16.0	336.8
Waterbury, Conn.	Included with New Haven, Conn.											
Waterloo, Iowa	100,448	79,946	69,446	56,570	44,865	32,399	25.6	15.6	22.2	26.1	38.5	210.0
Central city	65,198	51,743	46,191	36,230	26,693	12,880	26.0	12.0	27.5	35.7	112.2	448.3
Ring	35,250	28,203	22,955	20,340	18,172	19,519	22.9	22.9	17.9	11.9	-8.3	77.9
Urban	17,905	9,349	7,362	6,316	5,012	5,319	91.5	27.0	16.6	26.0	-5.8	236.6
Rural	17,345	18,594	15,593	14,024	13,160	14,500	-8.0	20.9	11.2	6.6	-9.2	19.6
Wheeling, W. Va.-	354,092	344,132	348,108	303,848	253,802	193,612	-2.8	4.6	14.6	19.7	31.1	82.9
Steubenville, Ohio	94,763	98,750	97,081	84,716	44,032	53,227	-4.0	1.7	14.6	32.3	20.3	78.0
Central cities	58,891	61,099	61,659	56,208	41,641	38,878	-3.6	-0.9	9.7	35.0	7.1	51.5
Wheeling	35,872	37,651	34,422	28,508	22,391	14,349	-4.7	6.3	24.3	27.3	56.0	150.0
Ring	299,329	265,382	251,027	219,132	189,770	140,385	-2.3	5.7	14.6	15.5	35.2	84.7
Urban	113,717	100,379	94,771	78,055	62,794	44,297	13.3	5.9	21.4	24.3	44.8	156.7
Rural	145,612	165,003	156,256	141,077	126,976	96,088	-11.8	5.6	10.8	11.1	32.1	51.5
Wichita, Kans.	222,290	143,311	136,330	92,234	73,095	44,037	55.1	5.1	47.8	26.2	66.0	404.8
Central city	169,279	114,966	111,110	72,217	52,450	24,671	46.4	3.5	53.9	37.7	112.6	582.1
Ring	54,011	28,345	25,220	20,017	20,645	19,366	90.5	12.4	26.0	-3.0	6.6	178.9
Urban	...	...	...	...	...	...	...	...	...	...	...	...
Rural	54,011	28,345	25,220	20,017	20,645	19,366	90.5	12.4	26.0	-3.0	6.6	178.9
Wichita Falls, Texas	98,493	73,604	74,416	72,911	16,094	5,806	33.8	-1.1	2.1	353.0	177.2	1996.4
Central city	68,042	45,112	43,690	40,079	8,200	3.3	...	...	...	...	...	...
Ring	30,451	28,492	30,726	32,832	7,894	5,806	6.9	-7.3	-6.4	315.9	36.0	424.5
Urban	9,525	8,402	9,993	10,044	...	...	13.4	-15.9	-0.5	...	...	...
Rural	20,926	20,090	20,733	22,788	7,894	5,806	4.2	-3.1	-9.0	188.7	36.0	260.4
Wilkes-Barre-Hasleton, Pa.	392,241	444,518	425,109	390,991	343,186	257,121	-11.2	-0.8	13.8	13.9	33.5	52.6
Central cities	112,317	124,245	123,391	106,110	92,557	65,951	-9.6	0.7	16.3	14.6	40.3	70.3
Wilkes-Barre	76,826	86,236	86,626	73,835	67,105	51,721	-10.9	-0.4	17.3	10.0	29.7	48.5
Hasleton	35,491	38,009	36,765	32,277	25,452	14,230	-6.6	3.4	13.9	26.8	78.9	149.4
Ring	279,924	317,273	321,718	284,881	250,629	191,170	-11.8	-1.4	12.9	13.7	31.1	46.4
Urban	182,747	212,316	220,679	185,284	140,678	74,827	-13.9	-3.8	19.1	31.7	88.0	144.2
Rural	97,177	104,957	101,039	99,597	109,518	116,343	-7.4	3.9	1.4	-9.4	-5.5	-16.5
Wilmington, Del.	268,387	221,836	197,866	184,811	150,187	135,227	21.0	12.1	7.1	23.1	11.1	98.5
Central city	110,356	112,504	106,597	110,168	87,411	76,508	-1.9	5.5	-3.2	26.0	14.3	44.2
Ring	158,031	109,332	91,269	74,643	62,776	58,719	44.5	19.8	22.3	18.9	6.9	169.1
Urban	33,160	26,615	21,972	17,349	9,965	9,191	24.6	21.1	26.6	74.1	8.4	260.8
Rural	124,871	82,717	69,297	57,294	52,811	49,528	51.0	19.4	20.9	8.5	6.6	152.1
Winston-Salem, N. C.	146,135	126,475	111,681	77,269	47,311	35,261	15.5	13.2	44.5	63.3	34.2	314.4
Central city	87,811	79,815	75,274	48,395	22,700	13,690	10.0	6.0	55.5	113.2	66.3	543.3
Ring	58,324	46,660	36,407	28,874	24,611	21,611	25.0	28.2	26.1	17.3	13.9	169.9
Urban	...	...	...	...	...	...	...	...	...	...	...	...
Rural	58,324	46,660	36,407	28,874	24,611	21,611	25.0	28.2	26.1	17.3	13.9	169.9
Worcester, Mass.	546,401	504,470	491,242	455,135	399,657	346,958	8.3	2.7	7.9	13.9	15.2	57.5
Central city	203,486	193,694	195,311	179,754	145,986	118,421	5.1	-0.8	8.7	23.1	23.3	71.8
Ring	342,915	310,776	295,931	275,381	253,671	228,537	10.3	5.0	7.5	8.6	11.0	50.0
Urban	218,333	209,057	200,880	178,833	165,156	135,514	4.4	4.1	12.3	8.3	21.9	61.1
Rural	124,582	104,719	95,051	96,548	88,515	93,023	22.5	7.0	-1.6	9.1	95.2	33.9
York, Pa.	202,737	178,022	167,135	144,521	136,405	116,413	13.9	6.5	15.6	5.9	17.2	74.2
Central city	99,953	96,712	95,234	47,512	44,750	33,708	5.7	2.6	16.3	6.2	32.8	77.9
Ring	142,784	121,310	111,881	97,009	91,655	82,705	17.7	8.4	15.3	5.8	10.8	72.6
Urban	28,227	26,474	24,792	15,182	7,057	5,302	6.6	6.8	63.3	115.1	33.1	432.4
Rural	114,557	94,836	87,089	81,827	84,398	77,403	20.8	8.9	6.4	-3.3	9.3	48.0
Youngstown, Ohio	528,498	473,605	458,451	364,018	246,616	174,112	11.6	3.3	25.9	47.6	41.6	203.5
Central city	168,330	167,720	170,002	132,358	79,066	44,885	0.4	-1.3	28.4	67.4	76.2	275.0
Ring	360,168	305,885	288,449	231,660	167,550	129,227	17.7	6.0	24.5	38.3	29.7	178.7
Urban	176,754	164,745	167,439	125,683	70,197	35,327	7.3	-1.6	33.2	79.0	98.7	400.3
Rural	183,414	141,140	121,010	105,977	97,353	93,900	30.0	16.6	14.2	8.9	3.7	95.3

Appendix Table 2-A.-Population in 1950 and 1940 and percent change 1940-50 of the standard metropolitan areas of New England, measured along town lines.

Standard metropolitan area	Population		Percent increase	Standard metropolitan area	Population		Percent increase
	1950	1940			1950	1940	
Boston, Mass.	2,569,986	2,177,621	8.8	New Haven, Conn.	264,622	240,760	9.9
Central city	801,444	770,816	4.0	Central city	164,445	160,606	2.4
Ring	1,668,542	1,406,805	11.5	Ring	100,179	80,146	25.0
Urban	1,492,394	1,351,487	10.4	Urban	82,010	80,021	2.5
Rural	76,148	55,318	37.7	Rural	68,169	50,124	36.0
Bridgeport, Conn.	258,137	212,569	21.4	Pittsfield, Mass.	66,567	60,996	9.1
Central city	168,709	147,121	7.9	Central city	55,348	49,684	7.4
Ring	99,428	65,448	51.9	Ring	13,219	11,312	16.9
Urban	55,428	22,580	48.0	Urban	9,592	8,428	13.8
Rural	66,000	42,868	54.0	Rural	3,627	2,864	26.8
Brookton, Mass.	129,428	119,310	8.5	Portland, Me.	119,942	106,568	12.6
Central city	62,860	62,343	0.8	Central city	77,534	75,645	2.5
Ring	66,568	56,967	16.9	Ring	42,308	32,923	28.5
Urban	45,183	39,088	15.6	Urban	34,150	26,868	27.1
Rural	21,385	17,879	19.6	Rural	8,158	6,055	34.7
Fall River, Mass.	137,298	135,137	1.6	Providence, R.I.	737,203	676,766	8.9
Central city	111,963	116,428	-3.0	Central city	248,674	253,504	-1.9
Ring	25,335	19,709	28.5	Ring	486,529	423,262	15.4
Urban	8,666	5,873	46.9	Urban	441,978	394,262	12.1
Rural	16,769	13,836	21.2	Rural	46,551	29,000	60.5
Hartford, Conn.	358,081	296,613	21.1	Springfield-Holyoke, Mass.	407,255	364,680	11.7
Central city	177,397	168,267	6.7	Central cities	217,060	205,304	6.8
Ring	180,684	129,346	39.7	Springfield	162,399	149,654	8.6
Urban	74,335	52,391	41.9	Holyoke	54,661	53,750	1.7
Rural	106,349	76,955	38.2	Ring	190,195	161,376	17.9
Lawrence, Mass.	125,935	124,849	0.9	Urban	155,681	133,529	16.6
Central city	80,686	84,323	-4.5	Rural	34,514	27,847	23.9
Ring	45,399	40,526	12.0	Stamford-Norwalk, Conn.	196,023	160,274	22.3
Urban	45,399	40,526	12.0	Central cities	123,763	87,787	41.0
Rural	...	...	...	Stamford	74,293	47,938	55.0
Lowell, Mass.	133,928	130,999	2.2	Norwalk	49,460	39,849	24.1
Central city	97,249	101,389	-4.1	Ring	72,270	72,487	-0.3
Ring	36,679	29,610	23.9	Urban	...	...	...
Urban	8,666	7,339	18.1	Rural	72,270	72,487	-0.3
Rural	28,013	22,271	25.8	Waterbury, Conn.	154,656	138,779	11.4
Manchester, N. H.	88,370	81,932	7.9	Central city	104,477	99,314	5.2
Central city	82,732	77,685	6.5	Ring	50,179	39,465	27.1
Ring	5,638	4,247	32.8	Urban	17,455	15,388	13.4
Urban	...	...	...	Rural	32,724	24,077	35.9
Rural	5,638	4,247	32.8	Worcester, Mass.	276,336	252,752	9.3
New Bedford, Mass.	137,469	134,435	2.3	Central city	203,466	195,694	5.1
Central city	109,189	110,341	-1.0	Ring	72,850	59,068	23.4
Ring	28,280	24,094	17.4	Urban	24,214	20,253	19.6
Urban	23,879	19,949	19.7	Rural	48,636	38,805	25.3
Rural	4,401	4,145	6.2				
New Britain-Bristol, Conn.	146,988	126,709	16.0				
Central cities	109,687	98,852	11.0				
New Britain	73,726	68,685	7.3				
Bristol	35,961	30,167	19.2				
Ring	37,296	27,857	33.9				
Urban	...	...	...				
Rural	37,296	27,857	33.9				

Appendix Table 2-B.-List of county equivalents to standard metropolitan areas of New England, with counties comprising each.

County equivalent areas (state economic areas)	Counties comprising the equivalent area	Grouping of 18 town-delineated standard metropolitan areas to form 12 county-equivalent standard metropolitan areas
Boston, Mass.	Essex, Middlesex, Norfolk, Suffolk	Boston, Lowell, Lawrence
Bridgeport-Stamford-Norwalk, Conn.	Fairfield	Bridgeport, Stamford-Norwalk
Brookton, Mass.	Plymouth	Brookton
Fall River-New Bedford, Mass.	Bristol	Fall River, New Bedford
Hartford, Conn.	Hartford	Hartford, New Britain-Bristol
Manchester, N. H.	Hillsborough	Manchester
New Haven-Waterbury, Conn.	New Haven	New Haven, Waterbury
Pittsfield, Mass.	Berkshire	Pittsfield
Portland, Me.	Cumberland	Portland
Providence, R. I.	Bristol, Kent, Providence	Providence
Springfield-Holyoke, Mass.	Hampden, Hampshire	Springfield-Holyoke
Worcester, Mass.	Worcester	Worcester

Appendix Table 3. - Number and percentage distribution of population in urbanized areas, 1950

Urbanized area	Number of inhabitants					Percentage distribution				
	Total	Central cities	Urban fringe			Total	Central cities	Urban fringe		
			Total	Cities	Remainder			Total	Cities	Remainder
Akron, Ohio	366,765	274,605	92,160	75,254	16,906	100.0	74.9	25.1	20.5	4.6
Albany-Troy, N.Y.	291,897	207,306	84,591	54,309	30,282	100.0	71.0	29.0	18.6	10.4
Allentown-Bethlehem, Pa.	225,962	173,096	52,866	38,549	14,317	100.0	76.6	23.4	17.1	6.3
Altosna, Pa.	86,614	77,177	9,437	6,483	2,954	100.0	89.1	10.9	7.5	3.4
Amariillo, Texas	74,445	74,246	197	...	197	100.0	99.7	0.3	...	0.3
Asheville, N.C.	56,437	53,000	5,437	...	5,437	100.0	90.7	9.3	...	9.3
Atlanta, Ga.	507,987	331,314	176,573	92,645	83,928	100.0	65.2	34.8	18.2	16.5
Atlantic City, N.J.	105,083	61,657	43,426	34,349	9,077	100.0	58.7	41.3	32.7	8.6
Augusta, Ga.	87,733	71,508	16,225	3,659	12,566	100.0	81.5	18.5	4.2	14.5
Austin, Texas	135,971	135,459	5,512	...	5,512	100.0	97.4	2.6	...	2.6
Baltimore, Md.	1,161,852	949,708	212,144	56,469	155,675	100.0	81.7	18.3	4.9	13.4
Baton Rouge, La.	138,864	125,629	13,235	3,097	10,138	100.0	90.5	9.5	2.2	7.3
Beaumont, Texas	94,169	94,014	155	...	155	100.0	99.8	0.2	...	0.2
Binghamton, N.Y.	144,011	80,674	63,337	39,299	24,038	100.0	56.0	44.0	27.3	16.7
Birmingham, Ala.	445,314	326,037	119,277	72,968	46,309	100.0	73.2	26.8	17.4	10.4
Boston, Mass.	2,235,448	801,444	1,432,004	1,414,888	17,116	100.0	35.9	64.1	63.4	0.8
Bridgeport, Conn.	237,435	158,709	78,726	32,164	46,562	100.0	66.8	33.2	13.5	19.6
Brookton, Mass.	92,116	62,660	29,256	23,877	5,379	100.0	68.2	31.8	25.9	5.8
Buffalo, N.Y.	798,043	580,132	217,911	115,428	102,483	100.0	72.7	27.3	14.5	12.8
Canton, Ohio	173,917	116,912	57,005	37,427	19,578	100.0	67.2	32.8	21.5	11.3
Cedar Rapids, Ia.	78,212	72,296	5,916	...	...	100.0	92.4	7.6	...	...
Charleston, S.C.	120,989	70,174	50,115	...	50,115	100.0	58.3	41.7	...	41.7
Charleston, W. Va.	130,914	73,501	57,413	36,769	20,644	100.0	56.1	43.9	28.1	15.8
Charlotte, N.C.	140,930	134,042	6,888	...	6,888	100.0	95.1	4.9	...	4.9
Chattanooga, Tenn.	167,764	131,041	36,723	13,537	23,186	100.0	78.1	21.9	8.1	13.8
Chicago, Ill.	4,920,816	3,620,962	1,299,854	1,168,813	131,041	100.0	73.6	26.4	23.8	2.7
Cincinnati, Ohio	813,292	503,998	309,294	252,613	56,681	100.0	62.0	38.0	21.1	7.0
Cleveland, Ohio	1,385,599	914,808	468,791	459,888	8,903	100.0	66.1	33.9	33.2	0.6
Columbia, S.C.	120,808	86,914	33,894	15,772	18,122	100.0	71.9	28.1	13.1	15.0
Columbus, Ga.	118,486	79,611	38,874	23,305	15,569	100.0	67.2	32.8	19.7	13.1
Columbus, Ohio	437,707	375,901	61,806	33,938	27,868	100.0	85.9	14.1	7.8	6.4
Corpus Christi, Texas	122,956	108,287	14,669	...	14,669	100.0	88.1	11.9	...	11.9
Dallas, Texas	538,924	434,462	104,462	52,895	51,567	100.0	80.6	19.4	9.8	9.6
Dayton, Ohio	194,925	160,666	34,259	22,100	12,159	100.0	82.4	17.6	11.3	6.2
Dayton, Ohio	346,864	245,872	102,932	20,414	82,518	100.0	70.3	29.7	5.9	23.8
Decatur, Ill.	73,713	66,269	7,444	...	7,444	100.0	89.9	10.1	...	10.1
Denver, Colo.	498,745	415,786	82,957	34,248	48,709	100.0	83.4	16.6	6.9	9.8
Des Moines, Ia.	199,934	177,965	21,969	5,615	16,354	100.0	89.0	11.0	2.8	8.2
Detroit, Mich.	2,659,398	1,849,568	809,830	637,794	172,036	100.0	69.5	30.5	24.0	6.5
Duluth, Minn.-Superior, Wis.	143,028	139,836	3,192	2,693	499	100.0	97.8	2.2	1.9	0.3
Durham, N.C.	73,368	71,311	2,057	...	2,057	100.0	97.2	2.8	...	2.8
El Paso, Texas	136,918	130,485	6,433	...	6,433	100.0	95.3	4.7	...	4.7
Erie, Pa.	151,710	130,803	20,907	3,411	17,496	100.0	86.2	13.8	2.2	11.5
Evansville, Ind.	137,973	128,656	9,317	...	9,317	100.0	93.5	6.5	...	6.5
Fall River, Mass.	118,120	111,963	6,157	4,930	1,227	100.0	94.8	5.2	4.2	1.0
Flint, Mich.	197,631	163,143	34,488	2,890	31,598	100.0	82.5	17.5	1.5	16.0
Fort Smith, Ark.	56,046	47,942	8,104	6,413	1,691	100.0	85.5	14.5	11.5	3.0
Fort Wayne, Ind.	140,314	133,607	6,707	...	6,707	100.0	95.2	4.8	...	4.8
Fort Worth, Texas	315,578	278,778	36,800	27,614	9,186	100.0	88.3	11.7	6.8	2.9
Fresno, Calif.	130,592	91,669	38,923	...	38,923	100.0	70.2	29.8	...	29.8
Galveston, Texas	71,527	66,568	4,959	...	4,959	100.0	93.1	6.9	...	6.9
Grand Rapids, Mich.	226,817	176,515	50,302	6,403	43,899	100.0	77.8	22.2	2.8	19.4
Greensboro, N.C.	83,412	74,389	9,023	...	9,023	100.0	89.2	10.8	...	10.8
Hamilton, Ohio	83,270	57,951	5,319	...	5,319	100.0	91.6	8.4	...	8.4
Hartford, Conn.	300,768	177,597	123,191	67,194	56,197	100.0	59.0	41.0	22.5	18.7
Harrisburg, Pa.	169,646	89,104	80,542	44,991	35,551	100.0	52.6	47.4	26.5	20.7
Houston, Texas	700,508	596,163	104,345	72,327	32,018	100.0	85.1	14.9	10.3	4.6
Huntington, W. Va.-										
Ashland, Ky.	156,288	117,484	38,804	25,403	13,401	100.0	75.2	24.8	11.3	8.6
Indianapolis, Ind.	502,375	427,173	75,202	11,183	64,019	100.0	85.0	15.0	2.2	12.7
Jackson, Miss.	100,261	98,271	1,990	...	1,990	100.0	98.0	2.0	...	2.0
Jacksonville, Fla.	242,909	204,517	38,392	...	38,392	100.0	84.2	15.8	...	15.8
Johnstown, Pa.	93,354	63,232	30,122	14,440	15,682	100.0	67.7	32.3	15.5	16.8
Kalamazoo, Mich.	83,332	57,704	25,628	...	25,628	100.0	69.2	30.8	...	30.8
Kansas City, Mo.	698,350	456,622	241,728	170,402	71,326	100.0	63.4	36.6	24.4	10.2
Knoxville, Tenn.	149,166	124,769	24,397	...	24,397	100.0	84.2	15.8	...	15.8
Launcester, Pa.	76,230	63,774	12,456	2,551	9,905	100.0	83.6	16.4	...	16.4
Lansing, Mich.	134,032	122,129	11,903	20,325	21,598	100.0	66.7	33.3	15.2	16.1
Lawrence, Mass.	112,309	80,536	31,773	...	...	100.0	71.7	28.3	...	...
Lincoln, Neb.	99,509	98,684	625	...	625	100.0	99.4	0.6	...	0.6
Little Rock-North										
Little Rock, Ark.	153,643	146,310	7,333	...	7,333	100.0	95.2	4.8	...	4.8
Los Angeles, Calif.	5,996,946	1,970,358	2,026,588	1,305,804	720,784	100.0	49.3	50.7	32.7	18.0
Louisville, Ky.	472,736	369,129	103,607	49,936	53,671	100.0	78.1	21.9	10.6	11.4
Lowell, Mass.	106,661	97,249	9,412	4,482	4,930	100.0	91.2	8.8	4.2	4.6
Macon, Ga.	93,499	70,252	23,247	...	23,247	100.0	75.1	24.9	...	24.9
Madison, Wis.	110,111	96,056	14,055	2,544	11,511	100.0	87.2	12.8	2.3	10.3
Manchester, N.H.	84,918	62,732	21,186	...	21,186	100.0	97.4	2.6	...	2.6
Memphis, Tenn.	406,034	396,000	10,034	...	10,034	100.0	97.5	2.5	...	2.5
Miami, Fla.	458,647	249,276	209,371	120,846	88,525	100.0	54.4	45.6	26.3	19.3
Milwaukee, Wis.	629,495	637,392	192,103	142,950	49,153	100.0	76.8	23.2	17.2	5.9
Minneapolis-St. Paul, Minn.	985,101	833,067	152,034	134,726	17,308	100.0	84.6	15.4	13.7	1.8
Mobile, Ala.	182,963	129,009	53,954	23,924	30,030	100.0	70.5	29.5	13.1	16.4
Montgomery, Ala.	109,468	106,525	2,943	...	2,943	100.0	97.3	2.7	...	2.7
Muskegon, Mich.	85,245	48,429	36,816	18,828	17,988	100.0	56.8	43.2	22.1	21.1
Nashville, Tenn.	258,887	174,307	84,580	2,831	81,749	100.0	67.3	32.7	1.1	31.6
New Bedford, Mass.	125,495	109,189	16,306	14,348	1,958	100.0	87.0	13.0	11.4	1.6
New Britain-Bristol, Conn.	125,079	109,687	15,392	...	15,392	100.0	89.1	10.9	...	10.9

Appendix Table 3.—Number and percentage distribution of population in urbanized areas, 1960--Continued

Urbanized area	Number of inhabitants					Percentage distribution				
	Total	Central cities	Urban fringe			Total	Central cities	Urban fringe		
			Total	Cities	Remainder			Total	Cities	Remainder
New Haven, Conn.	244,836	164,443	80,393	32,694	47,699	100.0	67.2	32.8	13.4	19.5
New Orleans, La.	669,768	570,446	89,323	26,535	62,788	100.0	86.5	13.5	3.9	9.7
New York-Northeastern N. J.	12,296,117	8,629,760	3,666,367	3,068,739	697,628	100.0	70.2	29.8	25.0	4.9
Niagara Falls, N. Y.	97,620	90,872	6,748	...	6,748	100.0	93.1	6.9	...	6.9
Norfolk-Portsmouth, Va.	386,111	293,562	91,569	14,243	77,316	100.0	76.2	23.8	3.7	20.1
Oklahoma City, Okla.	275,091	243,504	31,587	20,981	10,606	100.0	88.5	11.6	7.6	3.9
Omaha, Nebr.	310,291	261,117	59,174	45,429	13,745	100.0	80.9	19.1	14.6	4.4
Orlando, Fla.	73,163	52,367	20,796	8,250	12,546	100.0	71.6	28.4	11.3	17.1
Peoria, Ill.	164,639	111,866	42,683	19,622	23,061	100.0	72.4	27.6	12.7	14.9
Philadelphia, Pa.	2,922,470	2,071,606	850,866	668,601	182,264	100.0	70.9	29.1	22.9	6.2
Phoenix, Ariz.	216,038	106,818	109,220	24,474	84,746	100.0	49.4	50.6	11.3	39.2
Pittsburgh, Pa.	1,532,963	676,806	856,147	708,774	147,373	100.0	44.2	55.8	46.2	9.6
Pontiac, Mich.	92,573	73,681	18,892	...	18,892	100.0	79.6	20.4	...	20.4
Port Arthur, Texas	82,160	57,530	24,620	12,344	12,276	100.0	70.0	30.0	15.0	14.9
Portland, Me.	113,499	77,634	35,865	34,160	1,715	100.0	68.4	31.6	30.1	1.5
Portland, Oreg.	512,643	373,628	139,015	63,372	75,643	100.0	72.9	27.1	12.4	14.8
Providence, R. I.	583,346	248,674	334,672	329,516	5,156	100.0	42.6	57.4	56.6	0.9
Pueblo, Colo.	73,247	63,685	9,562	...	9,562	100.0	86.9	13.1	...	13.1
Racine, Wisc.	76,537	71,193	5,344	...	5,344	100.0	93.0	7.0	...	7.0
Raleigh, N. C.	68,743	65,679	3,064	...	3,064	100.0	95.6	4.4	...	4.6
Reading, Pa.	164,931	109,320	45,611	24,089	21,522	100.0	70.6	29.4	15.6	13.9
Richmond, Va.	257,995	230,310	27,685	...	27,685	100.0	89.3	10.7	...	10.7
Roanoke, Va.	106,862	91,921	14,761	10,462	4,309	100.0	86.2	13.8	9.8	4.0
Rochester, N. Y.	409,149	332,488	76,661	36,714	39,947	100.0	81.3	18.7	9.0	9.8
Rockford, Ill.	122,226	92,927	29,299	5,366	23,933	100.0	76.0	24.0	4.4	19.6
Sacramento, Calif.	211,777	137,572	74,205	6,029	68,176	100.0	65.0	35.0	2.8	32.2
Saginaw, Mich.	105,939	92,918	13,021	...	13,021	100.0	87.7	12.3	...	12.3
St. Joseph, Mo.	82,290	78,588	3,702	...	3,702	100.0	95.5	4.5	...	4.5
St. Louis, Mo.	1,400,068	866,796	543,262	408,640	134,622	100.0	61.2	38.8	29.2	9.6
St. Petersburg, Fla.	114,696	96,738	17,958	6,628	11,330	100.0	84.4	15.6	5.8	9.8
Salt Lake City, Utah	227,368	162,121	45,247	20,706	24,541	100.0	80.1	19.9	9.1	10.8
San Antonio, Texas	449,521	408,442	41,079	13,549	27,530	100.0	90.6	9.1	3.0	6.1
San Bernardino, Calif.	135,770	63,058	72,712	36,060	36,662	100.0	46.4	53.6	26.6	27.0
San Diego, Calif.	432,974	334,387	98,587	66,372	32,215	100.0	77.2	22.8	16.3	7.4
San Francisco-Oakland, Calif.	2,022,078	1,159,932	862,146	660,294	201,852	100.0	57.4	42.6	32.7	10.0
San Jose, Calif.	176,473	95,280	81,193	33,001	48,192	100.0	54.0	46.0	18.7	27.3
Savannah, Ga.	128,196	119,638	8,558	...	8,558	100.0	93.3	6.7	...	6.7
Schenectady, N. Y.	123,273	91,786	31,488	7,812	23,676	100.0	74.5	25.5	6.3	19.2
Scranton, Pa.	236,076	126,536	110,540	104,234	6,306	100.0	53.2	46.8	44.2	2.4
Seattle, Wash.	621,509	467,591	153,918	20,762	133,166	100.0	75.2	24.8	3.3	21.7
Shreveport, La.	160,208	127,208	33,002	16,470	7,532	100.0	84.7	15.3	10.3	5.0
Sixtus City, Iowa	90,101	83,991	6,110	5,567	553	100.0	93.2	6.8	6.2	0.6
South Bend, Ind.	166,166	115,911	52,254	32,913	19,341	100.0	68.9	31.1	19.6	11.6
Spokane, Wash.	176,004	161,721	14,283	...	14,283	100.0	91.9	8.1	...	8.1
Springfield, Ill.	97,371	81,628	15,743	...	15,743	100.0	83.8	16.2	...	16.2
Springfield, Mo.	75,549	66,731	8,818	...	8,818	100.0	88.3	11.7	...	11.7
Springfield, Ohio	82,284	78,508	3,776	...	3,776	100.0	95.4	4.6	...	4.6
Springfield-Holyoke, Mass.	356,908	217,060	139,848	135,704	4,144	100.0	60.8	39.2	38.0	1.2
Stamford-Norwalk, Conn.	173,536	123,753	49,783	...	49,783	100.0	71.3	28.7	...	28.7
Stockton, Calif.	112,834	70,853	41,981	...	41,981	100.0	62.8	37.2	...	37.2
Syracuse, N. Y.	265,286	220,583	44,703	18,923	25,780	100.0	83.1	16.9	7.1	9.7
Tacoma, Wash.	167,667	143,673	23,994	...	23,994	100.0	85.7	14.3	...	14.3
Tampa, Fla.	179,336	124,681	54,654	...	54,654	100.0	69.5	30.5	...	30.5
Terre Haute, Ind.	76,028	64,214	11,814	3,357	10,457	100.0	82.3	17.7	4.3	13.4
Toledo, Ohio	364,344	303,616	60,728	13,517	47,211	100.0	83.5	16.5	5.7	13.0
Topeka, Kans.	89,104	78,791	10,313	...	10,313	100.0	88.4	11.6	...	11.6
Trenton, N. J.	189,321	128,009	61,312	6,787	54,525	100.0	67.6	32.4	3.6	28.8
Tulsa, Okla.	206,311	182,740	23,571	6,994	16,577	100.0	88.6	11.4	3.4	8.0
Utica, N. Y.	117,424	101,531	15,893	10,796	5,097	100.0	86.5	13.5	9.2	4.3
Waco, Texas	92,834	84,706	8,128	...	8,128	100.0	91.2	8.8	...	8.8
Washington, D. C.	1,287,333	802,178	485,155	277,652	207,503	100.0	62.3	37.7	21.6	16.1
Waterbury, Conn.	131,707	104,477	27,230	17,455	9,775	100.0	79.3	20.7	13.3	7.4
Waterloo, Iowa	84,366	65,198	19,168	17,905	1,263	100.0	77.3	22.7	21.2	1.5
Wheeling, W. Va.	106,650	59,891	47,769	41,538	6,221	100.0	65.2	34.8	38.9	5.8
Wichita, Kans.	194,047	166,279	27,768	...	27,768	100.0	86.7	13.3	...	13.3
Wilkes-Barre, Pa.	271,589	76,826	194,763	167,653	27,110	100.0	28.3	71.7	61.7	10.0
Wilmington, Del.	187,359	110,356	77,003	17,379	59,624	100.0	58.9	41.1	9.3	31.8
Winston-Salem, N. C.	92,477	87,811	4,666	...	4,666	100.0	95.0	5.0	...	5.0
Worcester, Mass.	219,330	203,486	15,844	7,634	8,210	100.0	92.8	7.2	3.5	3.7
York, Pa.	78,796	59,953	18,843	5,766	13,087	100.0	76.1	23.9	7.3	16.6
Youngstown, Ohio	298,051	168,330	129,721	106,125	23,596	100.0	56.5	43.5	35.6	7.9

Appendix Table 4. Land area and population per square mile of standard metropolitan areas, 1950

Standard metropolitan area	Land area (square miles)			Population per square mile			Standard metropolitan area	Land area (square miles)			Population per square mile		
	Total	Central cities	Rings	Total	Central cities	Rings		Total	Central cities	Rings	Total	Central cities	Rings
Akron, Ohio	413	54	309	993	5114	377	Lorain-Elyria, Ohio	495	19	476	299	4267	140
Albany-Schenectady-Troy, N. Y.	1405	38	1367	366	7769	158	Los Angeles, Calif.	4853	451	4402	900	4370	546
Albuquerque, N. M.	1163	48	1115	125	2021	44	Louisville, Ky.	908	40	868	635	9251	239
Allentown-Bethlehem-Easton, Pa.	1082	37	1045	405	5478	219	Lubbock, Texas	892	17	875	113	4220	33
Altos, Pa.	531	10	521	263	7718	120	Macon, Ga.	630	12	618	214	5854	105
Amarillo, Texas	1812	21	1791	48	3552	7	Madison, Wisc.	1197	15	1182	141	6237	62
Asheville, N. C.	646	14	632	193	3555	113	Manchester, N. H.	890	32	858	176	2577	87
Atlanta, Ga.	1138	37	1101	590	8979	309	Memphis, Tenn.	751	104	647	642	3800	134
Atlantic City, N. J.	575	12	563	230	5361	126	Miami, Fla.	2054	34	2020	241	7289	122
Augusta, Ga.	1422	10	1412	114	7297	64	Milwaukee, Wisc.	239	50	189	3645	12748	1236
Austin, Texas	1015	32	983	159	4126	29	Minneapolis-St. Paul, Minn.	1721	106	1615	649	7859	176
Baltimore, Md.	1106	79	1027	1209	12087	377	Mobile, Ala.	1248	25	1223	155	5079	84
Baton Rouge, La.	462	30	432	343	4180	76	Montgomery, Ala.	790	26	764	176	4081	42
Bay City, Mich.	446	10	436	198	5471	82	Muncie, Ind.	400	10	390	226	5848	81
Beaumont-Port Arthur, Texas	945	44	901	206	3476	48	Nashville, Tenn.	533	22	511	604	7923	289
Binghamton, N. Y.	710	10	700	260	7988	149	New Haven-Waterbury, Conn.	610	46	564	895	5810	431
Birmingham, Ala.	1118	65	1053	500	4993	221	New Orleans, La.	1118	199	919	613	2661	125
Boston-Lowell-Lawrence, Mass.	1782	67	1715	1614	14529	1106	New York-Northeastern New Jersey	3939	352	3587	3276	24537	1194
Bridgeport-Stamford-Norwalk, Conn.	633	77	556	797	3673	399	Norfolk-Portsmouth, Va.	657	38	629	669	7545	243
Brooklyn, Mass.	664	21	643	285	2937	197	Ogden, Utah	549	17	532	152	3440	49
Buffalo, N. Y.	1587	39	1548	686	14724	329	Oklahoma City, Okla.	709	51	658	469	4793	124
Canton, Ohio	573	14	559	494	8292	298	Omaha, Nebr.	1533	41	1492	239	6170	77
Cedar Rapids, Ia.	713	25	688	174	2846	47	Orlando, Fla.	916	14	902	125	3714	69
Charleston, S. C.	945	5	940	174	13750	160	Peoria, Ill.	1277	13	1264	196	8671	110
Charleston, W. Va.	1567	10	1557	206	7556	101	Philadelphia, Pa.	3550	127	3423	1034	16286	467
Charlotte, N. C.	542	30	512	364	4468	123	Phoenix, Ariz.	9226	17	9209	36	6247	24
Chattanooga, Tenn.	1024	28	996	241	4680	116	Pittsburgh, Pa.	3053	54	2999	725	12487	512
Chicago, Ill.	3617	208	3409	1519	17450	550	Pittsfield, Mass.	942	41	901	141	1304	86
Cincinnati, Ohio	730	75	655	1239	6711	611	Portland, Me.	881	22	859	197	3594	107
Cleveland, Ohio	688	75	613	2130	12197	898	Portland, Oreg.	3663	64	3599	192	5829	92
Columbia, S. C.	748	13	735	191	6790	76	Providence, R. I.	619	18	601	1101	13892	721
Columbus, Ga.	1112	12	1100	153	6834	85	Pueblo, Colo.	2401	11	2390	38	6008	11
Columbus, Ohio	538	39	499	936	9541	256	Racine, Wisc.	337	9	328	325	7738	117
Corpus Christi, Texas	858	20	838	197	5469	70	Raleigh, N. C.	866	11	855	158	5971	83
Dallas, Texas	893	112	781	688	3879	231	Reading, Pa.	864	9	855	296	12423	171
Davenport, Iowa	873	36	837	268	4500	88	Richmond, Va.	734	37	697	447	6208	140
Dayton, Ohio	881	25	856	519	9755	249	Roanoke, Va.	303	26	277	440	3469	150
Decatur, Ill.	577	9	568	171	7126	57	Rochester, N. Y.	675	36	637	725	9236	244
Denver, Colo.	2918	67	2851	193	6224	52	Rockford, Ill.	520	14	506	293	6538	118
Des Moines, Iowa	594	55	539	380	3242	89	Rockford, Calif.	985	17	968	281	8140	144
Detroit, Mich.	1965	140	1825	1535	13249	639	Saginaw, Mich.	812	17	795	189	5597	76
Duluth, Minn.	7591	99	7492	55	1414	15	St. Joseph, Mo.	411	14	397	236	5574	46
Superior, Wisc.	299	13	286	340	5402	108	St. Louis, Mo.	2520	61	2459	667	14046	335
Durham, N. C.	1054	26	1028	185	5097	63	Salt Lake City, Utah	764	54	710	360	3379	131
El Paso, Texas	812	19	793	270	6956	112	San Angelo, Texas	1543	29	1514	38	1809	5
Evansville, Ind.	241	18	223	666	7146	143	San Antonio, Texas	1247	70	1177	401	5877	78
Fall River-New Bedford, Mass.	556	53	503	686	4173	319	San Bernardino, Calif.	20131	20	20111	14	3234	11
Flint, Mich.	644	29	615	421	5568	175	San Diego, Calif.	4258	99	4159	131	3564	53
Fort Wayne, Ind.	671	19	652	274	7107	77	San Francisco-Oakland-Calif.	3314	98	3216	676	11885	336
Fort Worth, Texas	877	94	783	412	2975	105	San Jose, Calif.	1305	17	1288	223	5605	152
Fresno, Calif.	5985	15	5970	46	6111	31	Savannah, Ga.	441	15	426	343	8194	75
Gadsden, Ala.	555	27	528	169	2049	77	Soranton, Pa.	454	25	429	567	5042	307
Galveston, Texas	430	8	422	205	8218	110	Seattle, Wash.	2134	71	2063	343	6504	129
Grand Rapids, Mich.	862	25	839	334	7545	133	Shreveport, La.	891	24	867	198	5300	57
Green Bay, Wisc.	525	14	511	187	3794	89	Sioux City, Iowa	871	46	826	119	1866	24
Greensboro, High Point, N.C.	651	28	623	293	4084	123	Sioux Falls, S. D.	815	13	802	87	4149	23
Greenville, S. C.	789	16	773	213	3590	142	South Bend, Ind.	467	20	447	459	5738	200
Hamilton-Middletown, Ohio	471	15	456	313	6110	122	Spokane, Wash.	1763	42	1721	126	3697	35
Harrisburg, Pa.	1075	6	1069	272	14213	190	Springfield, Ill.	880	10	870	149	7849	57
Hartford-New Britain-Bristol Conn.	740	58	682	729	4975	370	Springfield, Mo.	877	14	863	155	4907	57
Houston, Texas	1730	160	1570	486	3726	134	Springfield, Ohio	402	12	390	278	6488	85
Huntington, W. Va.-Ashland, Ky.	1407	22	1385	175	5340	93	Springfield-Holyoke, Mass.	1149	53	1096	396	4119	218
Indianapolis, Ind.	402	55	347	1373	7739	359	Stockton, Calif.	1410	12	1398	142	6004	93
Jackson, Mich.	705	10	695	153	5009	82	Syracuse, N. Y.	792	25	767	431	8719	158
Jackson, Miss.	877	27	850	162	3640	52	Tacoma, Wash.	1676	48	1628	165	2999	81
Jacksonville, Fla.	777	30	747	391	6772	133	Tampa-St. Petersburg, Fla.	1304	71	1233	314	3110	152
Johnstown, Pa.	1779	6	1773	164	11291	129	Terre Haute, Ind.	415	12	403	253	5253	102
Kalamazoo, Mich.	587	9	568	223	6557	124	Toledo, Ohio	343	38	305	1155	7927	302
Kansas City, Mo.	1643	81	1562	496	5665	229	Topeka, Kans.	545	12	533	193	6303	50
Kenosha, Wisc.	273	8	265	276	7154	79	Trouton, N. J.	228	7	221	1008	17779	461
Knoxville, Tenn.	1428	25	1403	236	4912	151	Tulsa, Okla.	572	27	545	440	6844	126
Leicester, Pa.	945	4	941	248	14831	182	Utica-Rome, N. Y.	2669	93	2576	107	1542	55
Lansing, Mich.	559	14	545	309	6534	148	Waco, Texas	1035	26	1009	126	3258	45
Laredo, Texas	3295	14	3281	17	3845	1	Washington, D. C.	1488	61	1427	984	13065	464
Lexington, Ky.	280	6	274	360	9743	165	Waterloo, Iowa	567	31	536	177	2083	66
Lima, Ohio	410	8	402	215	6611	94	Wheeling, W. Va.-Stubenville, Ohio	1530	16	1514	231	5850	171
Lincoln, Neb.	845	24	821	142	4155	25	Wichita, Kans.	999	26	973	223	6548	55
Little Rock-North Little Rock, Ark.	781	34	747	252	4253	67	Wichita Falls, Texas	612	14	598	161	4826	51
							Wilkes-Barre-Scranton, Pa.	891	13	878	440	8708	319
							Wilmington, Del.	787	10	777	341	11261	208
							Winston-Salem, N.C.	424	19	405	345	4671	144
							Worcester, Mass.	1518	37	1479	380	5500	232
							York, Pa.	914	4	910	222	14275	157
							Youngstown, Ohio	1720	33	1687	307	5132	213

Appendix Table 5. - Land area and population per square mile of urbanized areas, 1950

Urbanized area	Land area (square miles)			Population per square mile			Urbanized area	Land area (square miles)			Population per square mile		
	Total	Central cities	Urban fringe	Total	Central cities	Urban fringe		Total	Central cities	Urban fringe	Total	Central cities	Urban fringe
Akron, Ohio	98.3	53.7	44.6	3,731	5,114	2,066	Miami, Fla.	116.5	34.2	82.3	3,937	7,289	2,544
Albany-Troy, N.Y.	54.5	28.3	26.2	5,356	7,325	3,229	Milwaukee, Wis.	101.7	50.0	51.7	8,156	12,748	5,716
Allentown-Bethlehem, Pa.	49.3	34.5	14.8	4,585	5,017	3,572	Minneapolis-St. Paul, Minn.	231.0	106.0	125.0	4,266	7,859	1,216
Altoona, Pa.	14.1	10.0	4.1	6,143	7,718	2,302	Mobile, Ala.	41.0	25.4	15.6	4,463	6,079	3,459
Amarillo, Texas	22.0	20.9	1.1	3,384	3,552	179	Montgomery, Ala.	28.7	26.1	2.6	3,814	4,081	1,132
Asheville, N.C.	18.1	14.5	3.6	3,229	3,655	1,510	Muskegon, Mich.	21.7	8.9	12.8	3,928	5,441	2,876
Atlanta, Ga.	106.6	56.9	68.6	4,814	8,979	2,574	Nashville, Tenn.	53.7	22.0	31.7	4,821	7,923	2,668
Atlantic City, N.J.	55.0	11.6	45.5	1,911	5,381	998	New Bedford, Mass.	23.5	19.1	4.4	5,340	5,717	3,706
Augusta, Ga.	17.7	9.8	7.9	4,957	7,297	2,054	New Britain-Bristol, Conn.	45.9	40.3	5.6	2,681	2,722	2,591
Austin, Texas	34.6	32.1	2.5	5,930	4,126	1,405	New Haven, Conn.	46.8	17.9	28.9	5,232	9,187	2,782
Baltimore, Md.	151.8	78.7	73.1	7,654	12,087	2,902	New Orleans, La.	222.1	199.4	22.7	2,971	2,861	3,955
Baton Rouge, La.	41.3	30.2	11.1	3,362	4,160	1,192	New York-Northeastern N.Y.	1253.4	351.7	901.7	9,810	24,537	9,066
Beaumont, Texas	36.8	31.4	5.4	2,559	2,994	29	Niagara Falls, N.Y.	21.7	12.7	9.0	4,499	7,155	750
Binghamton, N.Y.	23.7	10.1	13.6	6,076	7,988	4,657	Norfolk-Portsmouth, Va.	62.4	38.4	24.0	6,172	7,645	5,815
Birmingham, Ala.	100.5	65.3	35.2	4,431	4,993	3,589	Oklahoma City, Okla.	67.0	50.8	16.2	4,106	4,793	1,950
Boston, Mass.	344.8	47.8	297.0	6,478	16,787	4,822	Omaha, Nebr.	68.5	40.7	25.8	4,662	6,170	2,294
Bridgeport, Conn.	42.6	14.8	28.0	5,574	10,870	2,812	Orlando, Fla.	24.9	14.1	10.8	2,938	3,714	1,926
Brooklyn, Mass.	30.5	21.4	9.1	5,020	2,937	3,216	Peoria, Ill.	33.2	12.9	20.3	4,655	8,671	2,103
Buffalo, N.Y.	101.0	39.4	61.6	7,901	14,724	3,538	Philadelphia, Pa.	311.6	127.2	184.4	9,379	16,286	4,614
Canton, Ohio	33.1	14.1	19.0	6,254	8,292	3,000	Phoenix, Ariz.	65.1	17.1	38.0	3,921	6,247	2,874
Cedar Rapids, Iowa	28.8	25.4	3.4	2,716	2,846	1,740	Pittsburgh, Pa.	253.6	54.2	199.4	6,045	12,457	4,294
Charleston, S.C.	18.4	5.1	13.3	6,537	13,760	3,768	Pontiac, Mich.	27.8	19.8	8.0	3,330	5,721	2,582
Charleston, W. Va.	29.1	9.6	19.5	4,499	7,656	2,944	Port Arthur, Texas	31.6	12.2	19.4	2,600	4,716	1,869
Charlotte, N.C.	34.5	30.0	4.5	4,085	4,468	1,631	Portland, Maine	61.2	21.6	29.6	2,217	3,594	1,212
Chattanooga, Tenn.	50.4	28.0	22.4	3,329	4,680	1,639	Portland, Ore.	113.5	64.1	49.4	4,517	6,829	2,614
Chicago, Ill.	638.0	207.5	430.5	7,713	17,450	3,019	Providence, R.I.	142.6	17.9	124.7	4,091	13,892	2,684
Cincinnati, Ohio	146.1	76.1	71.0	5,567	6,711	4,356	Pueblo, Colo.	15.8	10.6	5.2	4,636	6,008	1,839
Cleveland, Ohio	500.1	75.0	225.1	4,810	2,197	2,083	Racine, Wis.	12.1	9.2	2.9	6,325	7,738	1,843
Columbia, S.C.	28.7	12.8	15.9	4,209	6,790	2,132	Raleigh, N.C.	12.3	11.0	1.3	5,589	5,971	2,357
Columbus, Ga.	35.1	12.0	23.1	3,376	6,534	1,685	Reading, Pa.	26.4	8.0	17.6	5,869	12,423	2,692
Columbus, Ohio	64.5	39.4	25.1	6,786	9,541	2,462	Richmond, Va.	48.4	37.1	11.3	5,330	6,208	2,450
Corpus Christi, Texas	29.3	19.8	9.5	4,196	5,469	1,544	Roanoke, Va.	34.7	26.5	8.2	5,074	3,459	1,600
Dallas, Texas	142.7	112.0	30.7	3,777	5,879	3,403	Rochester, N.Y.	64.6	36.0	28.6	6,334	9,236	2,680
Davenport, Iowa	54.8	35.7	19.1	3,557	4,500	1,794	Rockford, Ill.	26.0	14.0	12.0	4,701	6,538	2,442
Rock Island-Moline, Ill.	54.8	35.7	19.1	3,557	4,500	1,794	Sacramento, Calif.	41.6	16.9	24.7	5,091	8,140	3,004
Dayton, Ohio	62.6	25.0	37.6	5,541	9,755	2,739	Saginaw, Mich.	24.0	16.6	7.4	4,414	5,597	1,760
Decatur, Ill.	15.3	9.3	6.0	4,818	7,126	1,241	St. Joseph, Mo.	17.2	14.1	3.1	4,784	5,574	1,194
Denver, Colo.	105.2	66.8	38.4	4,741	6,224	2,160	St. Louis, Mo.	227.8	61.0	166.8	6,146	14,046	3,257
Des Moines, Iowa	26.7	15.4	11.3	2,958	5,242	1,780	St. Petersburg, Fla.	69.8	52.2	17.6	1,642	1,853	1,015
Detroit, Mich.	394.9	139.6	255.3	6,734	13,249	3,172	Salt Lake City, Utah	76.1	53.9	22.2	2,988	3,379	2,038
Duluth, Minn.-Superior, Minn.	105.0	98.9	6.1	1,362	1,414	523	San Antonio, Texas	89.7	69.6	20.2	5,011	5,877	2,034
Durham, N. C.	14.8	13.2	1.6	4,957	5,402	1,286	San Bernardino, Calif.	30.5	19.5	11.0	2,244	3,234	1,778
El Paso, Texas	27.4	25.6	1.8	4,997	5,097	3,574	San Diego, Calif.	132.6	99.4	33.2	3,265	5,354	2,969
Erie, Pa.	29.8	18.8	11.0	5,091	6,958	1,901	San Francisco-Oakland, Calif.	287.3	97.6	189.7	7,038	11,885	4,545
Evansville, Ind.	22.2	18.0	4.2	6,197	7,146	2,128	San Jose, Calif.	60.6	17.0	43.6	2,912	6,605	1,662
Fall River, Mass.	35.3	33.9	1.4	3,346	3,303	4,398	Savannah, Ga.	22.5	14.6	7.9	5,698	8,194	1,083
Flint, Mich.	44.8	29.3	15.5	4,411	5,568	2,225	Schenectady, N. Y.	17.6	10.2	7.4	7,004	8,999	4,255
Fort Smith, Ark.	28.3	26.1	2.2	1,980	1,910	2,533	Soranto, N. Y.	103.9	24.9	79.0	2,272	6,042	1,399
Fort Wayne, Ind.	22.4	16.8	5.6	6,254	7,107	1,863	Seattle, Wash.	122.9	70.8	52.1	5,057	6,604	2,954
Fort Worth, Texas	119.0	93.7	25.3	2,552	2,975	1,455	Shreveport, La.	30.4	24.0	6.4	4,941	5,300	3,594
Fresno, Calif.	30.5	15.0	15.5	4,282	6,111	2,511	Sioux City, Iowa	49.3	45.0	4.3	1,828	1,866	1,421
Galveston, Texas	14.5	8.1	6.4	4,933	8,218	775	South Bend, Ind.	37.2	20.2	17.0	4,521	5,738	3,074
Grand Rapids, Mich.	46.7	23.4	23.3	4,857	7,543	2,159	Spokane, Wash.	51.1	41.5	9.6	5,444	3,897	1,438
Greensboro, N. C.	24.0	18.2	5.8	3,476	4,087	1,556	Springfield, Ill.	17.2	10.4	6.8	5,661	7,849	2,315
Hamilton, Ohio	9.2	7.6	1.6	6,877	7,625	3,324	Springfield, Mo.	17.8	13.6	4.2	2,244	4,907	2,100
Harrisburg, Pa.	29.3	6.3	23.0	5,790	14,213	3,483	Springfield, Ohio	13.2	12.1	1.1	6,234	6,488	3,433
Hartford, Conn.	52.9	17.4	35.5	5,686	10,195	3,476	Springfield-Holyoke, Mass.	167.3	52.7	114.6	2,133	4,119	1,220
Houston, Texas	270.1	180.0	110.1	2,594	3,726	948	Stamford-Norwalk, Conn.	81.9	62.3	19.6	2,119	1,986	2,540
Huntington, W. Va.-Ashland, Ky.	37.1	22.0	15.1	4,213	5,340	2,570	Stockton, Calif.	23.9	11.8	12.1	4,721	6,004	3,470
Indianapolis, Ind.	90.6	55.2	35.4	5,545	7,739	2,124	Syracuse, N. Y.	43.6	25.3	18.3	6,085	8,719	2,443
Jackson, Miss.	28.1	27.0	1.1	3,568	3,640	1,809	Tacoma, Wash.	62.2	47.9	14.3	2,696	2,999	1,878
Jacksonville, Fla.	50.8	30.2	20.6	4,782	6,772	1,864	Tampa, Fla.	40.8	19.0	21.8	4,395	6,562	2,507
Johnstown, Pa.	14.7	5.6	9.1	6,351	11,291	3,310	Terre Haute, Ind.	18.6	12.2	6.4	4,195	5,255	2,158
Kalamazoo, Mich.	21.2	8.8	12.4	3,931	6,557	2,067	Toledo, Ohio	69.8	38.3	31.5	6,220	7,927	1,928
Kansas City, Mo.	149.0	80.6	68.4	4,687	5,655	3,537	Topeka, Kans.	17.1	12.5	4.6	5,211	6,303	2,242
Knoxville, Tenn.	35.6	25.4	10.2	4,182	4,912	2,294	Trenton, N. J.	26.0	7.2	18.8	7,282	17,779	3,281
Lancaster, Pa.	8.2	4.3	3.9	9,302	14,831	3,207	Tulsa, Okla.	37.7	26.7	11.0	5,472	6,844	2,143
Lansing, Mich.	30.8	14.1	16.7	4,352	6,534	2,510	Utica, N. Y.	20.2	15.8	4.4	5,813	6,426	3,612
Lawrence, Mass.	16.1	6.7	9.4	6,976	12,020	3,380	Waco, Texas	30.1	26.0	4.1	3,084	3,258	1,982
Lincoln, Nebr.	26.4	23.8	2.6	3,769	4,155	240	Washington, D. C.	178.4	61.4	117.0	7,216	13,065	4,147
Little Rock-North Little Rock, Ark.	38.3	34.4	3.9	4,012	4,253	1,880	Waterbury, Conn.	47.0	27.6	19.4	2,602	3,785	1,404
Los Angeles, Calif.	871.3	450.9	420.4	4,587	4,370	4,821	Wheeling, W. Va.	23.1	10.4	12.7	4,617	5,663	3,761
Louisville, Ky.	66.6	39.9	26.7	7,098	9,251	3,860	Wichita, Kans.	37.5	25.7	11.8	5,175	6,546	2,134
Lowell, Mass.	16.6	12.9	3.7	6,425	7,539	2,544	Wilkes-Barre, Pa.	67.4	6.9	60.5	4,030	11,134	5,219
Macon, Ga.	22.0	12.0	10.0	4,250	5,854	2,325	Wilmington, Del.	46.7	9.8	36.9	5,012	11,261	2,087
Madison, Wis.	24.5	15.4	9.1	4,494	6,237	1,545	Winston-Salem, N. C.	23.1	18.8	4.3	4,003	4,671	1,085
Manchester, N. H.	34.3	32.1	2.2	2,478	2,577	994	Worcester, Mass.	43.6	37.0	6.6	5,031	5,600	2,401
Memphis, Tenn.	109.6	104.2	5.4	3,705	3,800	1,858	York, Pa.	9.1	4.2	4.9	8,659	14,275	3,846
							Youngstown, Ohio	78.9	32.8	46.1	3,778	5,132	2,614

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